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C. C. C. Carr.

Editor.

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WITH THE RESERVE BRIGADE.

THIRD PAPER.

ON THE 10th of October our army took up a position on the left bank of Cedar Creek, about four miles from Strasburg. The Sixth Corps continued its march to Front Royal, *en route* to Washington, via Ashby's Gap. The First Cavalry Division took position on the left of our lines, the Third Division on the right, and the Second—POWELL'S—fell back through the Luray Valley to the vicinity of Front Royal. On the 13th, the enemy reoccupied Strasburg and Fisher's Hill, and the same day made a reconnoissance in force, by which two brigades of the Eighth Corps became engaged and suffered severe losses. CUSTER's pickets on the Back Road were driven in by ROSSER at the same time, and, although they were promptly reestablished, the First Division saddled up and moved over to the right to be on hand in case an opportunity for a fight should be afforded. The same evening we went into camp on the right and remained there during the 14th, and until the evening of the 15th, when the division accompanied General SHERIDAN to Front Royal. The aggressive movements of EARLY's forces on the 13th, had caused the recall of the Sixth Corps, which arrived at Cedar Creek on the 14th, and was placed in position to the right and rear of the Nineteenth Corps.

General SHERIDAN, having been called to Washington for consultation with the authorities concerning the future movements of his army, had decided to send MERRITT's and POWELL's divisions, from

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Front Royal, through Ashby's Gap, to move upon Charlottesville and Gordonsville and destroy the Virginia Central railroad; but at Front Royal he received a dispatch from General WRIGHT, who had been left in command of the army, which caused him to believe it would be prudent to postpone the proposed expedition of the cavalry. The First Division was accordingly ordered back to the army, while the General proceeded to Rectortown, and thence, by rail, to Washington.

The withdrawal of the First Division from the left of the army had left that flank unprotected by cavalry outposts, although it was understood that POWELL's division was to close in from Front Royal to afford the necessary protection. Our movements being distinctly visible from the enemy's signal station on Massanutten Mountain, he did not fail to observe and take advantage of the withdrawal of the cavalry videttes.

The First Division having returned from Front Royal on the 18th, received orders the same evening to move at daylight on a reconnoissance to our right and front. We were in the saddle at the first dawn of day, but as a heavy fog added to the obscurity of the morning, our movement was for a short time delayed. Before sunrise we had moved forward, and as objects became visible, saw the lines of the enemy's cavalry forming in the distance. Considering the lesson which the Confederate troopers had received a few days before, this boldness was somewhat surprising, and we were about advancing to the attack, when the increasing sound of artillery fire and the roll of musketry from the left of our lines apprised us that something unusual was taking place.

It was known that a reconnoissance in force had been ordered for that morning, and for this reason the firing had at first attracted no particular attention, but now the terrific noise of battle was unmistakable. It was certain that a general action was in progress. At this moment a staff officer dashed up with orders for the division to move rapidly to the left. Soon the appalling news was passed from mouth to mouth that our forces had been surprised, and that the whole army was routed.

Almost immediately our worst anticipations were confirmed by the sight of our dispersed forces pouring to the rear in confusion. The fields were fairly blue with them. Not a sign of organization remained. None of them were running, and none appeared much frightened; indeed, some of the men were laughing as though they thought it a good joke that EARLY should have so turned the tables on them; while others were wrathfully grumbling that "it never would have happened if LITTLE PHIL had been here." Some attempt

was made to rally them but without much success. All protested that they were in search of their companies. It is related that a lieutenant who was among these fugitives, having been stopped by an officer of high rank and expostulated with for setting such a bad example to his men, replied with the statement that he had just been promoted from second lieutenant to first lieutenant, and not yet mustered in as of the latter grade, and that, consequently, his conscience would not permit him to take part in the fight, as, if he should kill anybody under these circumstances it would be murder. The General, it is said, assured him that he had full authority, and that he could consider himself mustered in, then and there.

No attempt will be made here to describe the battle of Cedar Creek; but in order to make clear the part taken in this battle by the Reserve Brigade it is necessary to refer to the main incidents of that fateful day.

KERSHAW's division of EARLY's army had proceeded from Fisher's Hill, along the base of Massanutten Mountain, before daylight, and under cover of a dense fog, which favored the enterprise, had crossed the Shenandoah and surprised THOBURN's division of the Eighth Corps almost in its tents. This attack was followed by the rapid advance of the rest of EARLY's army, to which stout resistance was made by the remainder of the Eighth Corps, together with the Nineteenth, but without avail. They were driven from their lines in confusion, with the loss of eighteen guns.

The victorious enemy, pushing forward, next encountered the Sixth Corps, with such portion of the Nineteenth as had retained its organization, and although he was successful in driving them from their first position, with the loss of six more guns, a position was finally taken up about one mile north of Middletown and four miles from the advanced camps of the Eighth Corps, which, with the assistance of the two cavalry divisions under Generals MERRITT and CUSTER, was held until the troops which had gone to the rear were reorganized, and led forward to victory by the invincible SHERIDAN, who, hearing the noise of battle at Winchester, had made his memorable ride to the front, and, by the magnetism of his presence had inspired his routed forces with something of his own indomitable spirit.

EARLY's victory had not been achieved without severe losses. His successive encounters with our veteran troops had produced such an amount of disorder and disorganization in his ranks as to render a short period of rest indispensable. Unfortunately for him, the time which should have been devoted by his troops to preparation for the renewal of the contest, was spent in the demoralizing occupation of

plundering the captured camps. In the absence of any effective cavalry force to follow up his victory, he had accomplished about all that was practicable, and, had he been permitted to do so, would doubtless have been satisfied with holding on to such tangible results of victory in the shape of guns, material and prisoners as he then possessed.

It must have been about 9:30 o'clock A. M., when we were ordered to dismount and take position behind a stone wall, with the brief but comprehensive injunction to "stay there." This piece of wall extended west from the Valley turnpike; it was well and compactly built, and afforded excellent cover. There was a rail fence connecting with the wall which extended to our right as far as an old barn on a rise of ground, some four hundred yards distant. This point was occupied by skirmishers of the Nineteenth Corps.

For a time all remained quiet in our front, but soon the enemy's skirmishers began to be heard from, and it was only necessary for a head to be shown above the wall to attract a score of bullets. A little later they occupied the wall on the opposite side of the road, not more than fifty feet distant from our line. Of course we hugged the wall very closely, but there was frequent necessity for some exposure, and in such cases a sudden dash was the only method that afforded any chance of safety. Our opponents, however, were no better off, and it was equally dangerous for them to expose themselves for the purpose of taking a shot.

It finally became necessary to send men to the rear for a supply of ammunition, when, in leaving and approaching the wall, they were exposed for a considerable distance to the hostile fire. Several men were struck down in the performance of this duty, yet volunteers were always ready for it when called for.

Between one and two o'clock P. M., the enemy made a demonstration to our right, against the Nineteenth Corps. The attack was repulsed without difficulty, but it had the effect of causing the withdrawal of the force which held the old barn on the high ground to our right, and it was at once occupied by the enemy. We were soon made aware of this fact by an enfilading fire from that flank, and it soon became apparent that our position was no longer tenable. As man after man was struck, the men nearest the pike began to seek shelter behind the wall bordering the pike and running at right angles with the one at first occupied.

The brigade commander being near by, the condition of affairs, and the impossibility of holding the position unless the hostile force should be dislodged from the commanding point on our right, was represented to him. Colonel LOWELL explained, that General SHERI-

DAN was forming the troops in the rear for a grand advance, and that it was vitally necessary to the success of his plans that we should hold our advanced position until the attack was made. He at once sent a request to the commanding officer of the force on our immediate right to drive the enemy from the commanding point in his front, and having ordered a portion of the reserve to our assistance, mounted his horse, and accompanied by the commanding officer of the First Cavalry rode to the front. This courageous example, at the critical moment, inspired the little force anew with the determination not to disappoint the faith which had been staked upon their soldierly courage and conduct.

A not very vigorous attempt by the infantry on our right to occupy the position at the old barn was unsuccessful, and the galling fire from the right still continued. An attempt was now made to establish a line of rail barricades on the left of the turnpike, but the storm of bullets which this attempt produced was so deadly that the work was soon abandoned and the men sheltered themselves as best they might along the walls of the pike, erecting little mounds of stones as cover from the direct fire, while by loop-holes made in the walls they commanded the fields on either side of the road. It was in the attempt to establish the line on the left of the turnpike that Colonel LOWELL was first wounded. He was struck by a bullet which broke his left arm and knocked him from his horse; but the wound having been hurriedly dressed, and his arm bound to his body, he almost immediately again mounted his horse and continued to direct and encourage the men. Captain EUGENE M. BAKER, commanding the First Cavalry, had remained with him, and as they were the only mounted men in sight, they presented such a target for the enemy's marksmen, at short range, that it is surprising that either escaped.

It now became evident that the enemy was massing in our front, either anticipating an attack, or in preparation for an advance. The voices of the officers could be heard giving orders and directions as the troops formed their lines. Two guns were run out into the road hardly more than one hundred yards distant, the gunners seeking shelter near their pieces as soon as they were targeted.

During the afternoon, as our infantry had regained their organization, the cavalry (except the Reserve Brigade) had been mounted; CUSTER's division being sent back to the right, while MERRITT's moved to the left. The Reserve Brigade, as before stated, was to "hold on" to their important position on the pike until the grand attack was made.

At last, at about four P. M., after we had been hugging the ground

for six long, weary hours, we heard the music of the bands, and the cheers of our advancing troops. No longer the defeated, dispirited and disorganized fragments of the morning, but serried lines of veterans, marching with confidence to victory under a leader who had never yet failed them. The war may have produced greater generals than SHERIDAN, but not one who so possessed the confidence of his soldiers, or whose name was more potent as an omen of victory.

As our lines advance the artillery of the enemy opens and is answered by our own. The thunder of a hundred guns fairly shakes the solid earth, and the frightful sounds of the rushing missiles may be likened to the howls and shrieks of a multitude of angry demons from Hades seeking their prey. We are between the two lines and watch through chinks in the wall the forward movement of our magnificent Sixth Corps. As the Confederate gunners get the range they drop shell after shell into their ranks, but there is no hesitation or faltering. Three shells in quick succession burst in front of the colors of one regiment, but even though bearer after bearer falls, they are not permitted to touch the ground; other willing hands seize and bear them aloft, and the regiment keeps steadily to its place in the line.

Soon, as they approach our position, they come within musket range, and the terrible crash with which the fire of the enemy opens seems to silence all other sounds. The roar of the artillery is no longer heard. But will it be possible for our lines to preserve their formation in this awful storm of lead? They take the double time and, with a cheer, rush for the stone wall which we were obliged to abandon; will they reach it? Men are falling thick and fast. They reach a point nearly abreast with our position—their ranks become disordered—some pause, bewildered, and look to the rear, others press on. We become filled with the excitement of the occasion; we cannot rest crouching in safety at such a time. We join them with a cheer and words of encouragement. The lines on our right have reached the old building on the hill. The brigade next the pike springs again to its work—the wall is reached—the brave men can take breath and gird themselves for further work.

But our dismounted work was completed, and we hastened to find our horses, that as cavalymen we might take part in the final overthrow of the now demoralized enemy. The sound of receding battle on the right told us that our forces were there successful, and the brigade having been hastily formed, was led by the heroic LOWELL in a final charge against the shaken lines of EARLY's infantry. The charge was decisive of the complete rout of the enemy at that point, and was pushed forward until the character of the ground, obstructed

as it was by walls and fences, obliged the brigade to halt and re-form, when we found, alas! that victory for the Reserve Brigade had been dearly bought by the loss of its gallant leader, who had met a soldier's death at the head of his brigade. He was the *beau-idéal* of a cavalry officer. His was that quality of bravery which is found only with that greatness of soul which makes a sense of duty to be performed dominate and control all human impulses and feelings. No amount of personal danger could for a moment obscure his judgment or impair the clearness of his mind; he also possessed that quality, so essential in a cavalry leader—the ability to seize those fleeting opportunities for action, which once permitted to pass never return.

Colonel GIBBS, First New York Dragoons, again succeeded to the command of the brigade, and we ended our day's work by pursuing, in the dusk of the evening, some fragments of LOMAX's cavalry to the fords of the Shenandoah. In the confusion incident to the darkness the regiments of the brigade had become separated, but remembering SHERIDAN's promise, we wended our way across the battle-field to the locality of our morning's camp. Of course we found nothing of it left. When the fighting began in the morning the cooks and camp followers had hastily packed up their traps and struck out for Winchester, and we saw nothing of them until the third day after the battle.

We unsaddled, and having secured our tired and hungry horses as best we could, without being troubled with having to wait for supper, with our saddles for pillows, we wooed the tired soldier's friend—sleep and forgetfulness. But our success in this endeavor was not great. In a ravine near by our men had found a number of the wounded from both armies who had there sought shelter, and as many as could be found in the darkness were brought in and cared for. The groans of the wounded, the knowledge of so much suffering about us which we were powerless to relieve, and the chilliness of the night, combined to render our slumbers light and fitful, and all were glad when daylight and opportunity for action came once more. We had learned during the night that our lost guns had been recaptured, and that vast quantities of material had fallen into the hands of our pursuing cavalry.

EARLY, in his retreat, had succeeded in getting everything across Cedar Creek, and as night was at hand the only pursuit attempted was by one brigade, each, from the divisions of MERRITT and CUSTER. The precipitancy with which the Confederate forces had been hurried across the creek had caused great confusion on the turnpike, which was their only line of retreat. The breaking down of a small bridge just be-

yond Strasburg added to the confusion, and the arrival upon the scene of the Union cavalry in the obscurity of the evening created a panic, and everything was abandoned; hardly a shot being fired by the rear guard, if even such a force had been thought of.

The cavalry was ordered to pursue on the morning of the 20th, and were in the saddle at daylight. The men had their customary three days' rations in their saddle-bags on the morning of the 19th; but the officers were accustomed to rely upon the little pack-train which carried the mess outfit. On this occasion it failed to appear in time to join the pursuing column, and during the three days which followed we had abundant opportunity to assure ourselves of the thoroughness with which our work of destruction in the Valley had been performed.

Our advance came up with ROSSER's cavalry at Fisher's Hill, but they had had sufficient experience of contact with our horsemen, and gave us no trouble. The pursuit was continued through Woodstock, to Edinborough, at which place we encountered a force of infantry in a strong position, which they held until dark. On the 21st, we marched to Mount Jackson, where we found the enemy in such force as to make it apparent that no good result could be accomplished by the cavalry alone. On the 22d, we retraced our steps to Strasburg, and on the 23d, rejoined the army and our pack-train, which we found laden with substantial and welcome supplies.

The victory at Cedar Creek, no less than that of Winchester, was due to the superiority of our cavalry over that of the enemy. If EARLY had possessed an efficient cavalry force, by its use on the flanks of the Union army in the attack of the morning its defeat must have been followed by irretrievable rout. But the crushing defeat inflicted upon the Confederate cavalry at Tom's Brook, ten days before, had so paralyzed that portion of EARLY's army as to render it almost useless. ROSSER's division was held in check on our right by one small brigade, while LOMAX was prevented from carrying out his instructions to strike the Valley Pike between Middletown and Winchester, by POWELL's division. After the surprise and defeat of our forces in the morning, the cavalry confronted EARLY's victorious army and thus gave opportunity for the reorganization of our lines. In the grand attack of four P. M. its vigorous charges upon the flanks of the Confederate army contributed in a great measure to its defeat and rout; and finally, after the battle had been won, by its audacity and enterprise, it gathered the fruits of victory.

MOSES HARRIS,
Captain, First Cavalry.

LETTERS ON CAVALRY, BY PRINCE KRAFT ZU HOHEN- LOHE-INGELFINGEN.

TRANSLATED BY COLONEL R. P. HUGHES,
INSPECTOR GENERAL, U. S. A.

SIXTEENTH LETTER — EXERCISES IN LARGE COMBINATIONS.

FOLLOWING the course of instruction we now come to the exercises of the regiment and the larger commands. Very important improvements have been made in the leading of a cavalry regiment since the last war, thanks to the regulations of 1876, and to the suggestions of General v. SCHMIDT, who alas! was taken from us too soon. The regiment is more mobile and much more easily handled since the guide has been changed to the center, and since it is no longer necessary that the squadrons be arranged according to their numbers, but may be indicated and designated by the names of their squadron chiefs.

One difficulty that has been a source of trouble heretofore can now be avoided, viz: formations by inversion. Experienced and skilful regimental commanders have learned, by means of these regulations, to maneuver their regiments so well that in this respect further improvement does not seem possible, and especially is this the case, if the horses are not permitted to lose the high state of training in which they are at the end of June, by want of exercise during the month of July. For this reason they should be violently exercised once or twice a week in addition to their ordinary drill work. Since the work, as now executed, is correct in principle, I have no criticisms to make; and even if individuals do fall short of what is required of them by the rules, this is not the place to invite attention to it. I only wish to call attention to two points that have attracted my notice very generally; these are the flanking squadrons and the second line.

A regiment in making an attack in line against cavalry, can, as you know, either make a frontal attack or send a squadron to attack the enemy in flank. I have always seen a good deal of intricacy in the ma-

nipulation of this flanking squadron, and I very much doubt whether such an attack would make a very great impression upon or break a determined enemy. Then there was always great importance laid upon having the squadron which made the flanking movement come up simultaneously with the other, *i. e.*, this flanking squadron must receive the command "Charge" and "Halt" at exactly the same instant as the balance of the regiment; and after the command "Halt," must be on the flank of the line with its outer flank thrown forward. In order to do this some artifice had to be resorted to, which would be impossible in front of an enemy. The flanking squadron had a longer distance to go, and must receive the command to gallop sooner than the rest of the regiment; or, in other words, the rest of the regiment must check its pace when, in fact, the proximity of the enemy requires that it increase the gait. But if the flanking squadron moves to the flank earlier, while the main body of the regiment is still at a trot, then the distance is so great that by taking the highest gait it cannot come up in time to attack the enemy on the flank at the same instant that he is struck by the main line in front. It is necessary in practicing these things on the drill ground that many expedients be resorted to that are never practicable before an enemy. It is necessary that the chief of the flanking squadron should know exactly how far the regimental commander will ride at full speed, otherwise he holds himself too far out and the command "Halt," finds him far from the regiment, or he does not hold himself far enough out, and his attack falls upon the rear of his own regiment or across its front. That seems so horrible that one might well despair of having such a regiment put in front of the enemy. But such a thing cannot occur in action, for then the flank of the enemy is in sight as the object of attack, a living reality, and can be ridden at; and then all such expedients and artifices of whatever kind are useless and only annoy and weary the troops.

It is scarcely possible that a fairly drilled enemy can be successfully attacked in the flank by such an evolution. Besides, when a squadron detaches itself from the mass and moves off in the turning movement, the enemy will send a force against it; and this squadron will thus have a special action of its own with the force sent against it, and it will not be able to fall upon the flank of the enemy and aid in the main effort.

Again, the charge against the enemy's flank is much more effective immediately after the collision of the two cavalry lines, than it would be if it took place simultaneously with it. Then the two lines throw themselves upon each other, and ride through each other, and,

for several minutes, there is a fearful confusion — fighting, struggling, yelling and cursing. Old military men, however, told me when I was yet a young officer, that out of twelve cavalry attacks eleven never came to a collision. One of the two would almost invariably turn tail and run, and the other could not overtake him. In my experience in war, I have never seen anything of that kind. I have never seen a charge, I must say for the honor of our enemies, that was not met by the hostile cavalry. The collision always took place, followed by the hand to hand conflict and the confusion of which I have spoken. The scale of victory would then turn in favor of that side which still had in hand a few troops in close formation, or to whose assistance a few good, and as yet unengaged troops, opportunely arrived, especially on the flanks, even if this was one or two minutes after the shock. All the hand to hand conflicts that I have witnessed have lasted one or two minutes at least, and sometimes five or ten minutes. Some of the men of both sides succeeded in dashing through the enemy's line, while others were so wedged in that they had to continue the struggle at a halt. In rear of this seething mass and on its flanks, individual horsemen disengage themselves, fall to the rear and thus increase the depth of the line. Individual fugitives were pursued by the enemy. Finally the side from which most troopers fled was beaten. Fresh troops coming up in close formation during this hand to hand conflict exercise a great physical and moral pressure. Especially if they ride up sharply from the flank, and ride down, rather than cut down the enemy. Any one who has witnessed this kind of an attack will no longer have any doubt that the flank attack is more effective when it falls one or two minutes after the shock — after the confusion has already been created — than when it takes place simultaneously with the shock. One or two minutes! What a fearful time for the cavalry! It is my opinion that the success of the flanking squadron will be much more certain if it advances as flank squadron of the attacking line, up to the moment when the word, "Charge," is given, and then change direction by an eighth-turn at a moderate gallop, and, by another change of direction, fall upon the flank of the enemy. He will hardly notice the flanking squadron after he gives the command, "Charge," to meet the enemy by a counter attack; and he will have no time to make suitable disposition to meet this second blow. It is possible, and even probable, that the enemy may thus be surprised, because the dust generally plays a considerable part in such actions; and it would be likely to envelop the flanking squadrons and conceal them from the enemy's view.

In these attacks on the enemy's flank, it frequently happens that the squadron chief is too hasty with the charge, and does not wait for the platoons to form line, and the attack thus becomes disjointed. The object is also moving and the squadron must be exceedingly well drilled if it is to remain well closed up. What then occurs, has been already noticed in the fourteenth letter.

The complications in the flanking movements of which I have spoken are greatly increased when the regiment is formed into two lines, still more so when a whole regiment, and most of all when a whole brigade forms the second line of a large cavalry mass. The distances are then so great that it would be rather difficult to surprise the enemy, if the great mass sent a detachment off to gain his flank. The usual complaint then heard is, that the second line arrived too late because it did not ride fast enough. It would be easier to effect a simultaneous attack of the two lines if the first line were sent to attack the enemy in flank while the second is left to push straight to the front, an evolution which is given in paragraph 200, of the regulations. General v. SCHMIDT preferred this evolution to all others to gain the enemy's flank with one of two lines. It would seem that the enemy could never be surprised in this way as he would notice the flanking movement of the first line sooner and easier than that of the second. Nevertheless, the enemy has been taken by surprise in every instance that I have seen this movement resorted to at maneuvers, owing to the protection and assistance of the dust. If the first line (behind which the second is advancing) wheels out, or makes a change of direction, and the second line is concealed from view by the clouds of dust, the enemy falls into the error of thinking that the entire cavalry mass is making a flank movement; he hopes to overthrow it while engaged in this maneuver and hurls his command upon it, making a change in his own front in doing so. The first line now faces to the front and charges, while the second line advances straight to the attack and takes the enemy in flank and rear while he is engaged in his change of front. The success of such an attack cannot be doubtful when it is carried out with precision.

It must not be left out of the calculation that this can only be attempted with an excellently disciplined and drilled cavalry, without running great risk of losing more through the want of unison and vehemence in the shock than has been won through the flanking maneuver.

Think of the feelings of the troops of the first line who must quietly continue the flanking movement and wait for the signal to form line and charge, while they see the enemy's cavalry mass come charg-

ing down upon their flank. It is to be observed that a regiment would have to be well trained in the gallop to be able to form line from column of platoons, at signal, and immediately execute an effective charge. When all these things are considered, one is tempted to think the entire maneuver so complicated that it can never prove successful in the face of the enemy. But similar movements have been successful. Old BLUCHER, as colonel of hussars, enticed the clumsy French cuirassiers to pursue him by wheeling about by platoons and trotting to the rear, and as soon as the French had fallen into disorder in the pursuit he gave the signal to "Front" and "Charge." General v. HYMMEN did likewise as Rittmeister with a squadron and let the two troops retreat on diverging lines until the enemy had pursued far enough to admit of his attacking him on both flanks by signaling "Front," "Charge." If, then, a thing which is by general consent acknowledged to be more effective has been done, for cavalry retreating before an enemy at a trot is harder to direct than flanking cavalry—the easier must still be possible. But it must never be forgotten cavalry must be exceedingly well drilled to insure the success of this *coup*. With newly raised troops (Landwehr Cavalry) or with cavalry which, after a long continued war and severe losses, has received many poorly instructed and less reliable recruits in men and horses, such things should not be attempted.

It is to be understood that this maneuver must not be regarded as of universal application. Regulations for the conducting of the second line are not absolute, but only describe the duties, and indicate a few movements as examples.

At the time our present drill book was given to the troops for trial, I heard many cavalrymen complain that the distance of 300 paces between the first and second lines was too great. But afterward when that distance had been definitely fixed in the regulations all complaints against the sanctioned and prescribed form ceased. They held the opinion that, when the second line was so far from the first, it could never attack at the right moment. I could never believe that this complaint was well founded, for I inclined to the opinion that 300 paces was too short rather than too long a distance. There is a good deal of difficulty in time of peace in so directing the second line at 300 paces distance as to make everything reach the climax at the desired instant, *i. e.*, that the attack in flank shall immediately follow the attack in front, etc. Much more time is lost in preliminaries in time of peace than in war, especially when no enemy is marked; for in maneuvers the division commander has first to communicate to the commanders of the lines whether the attack is to be

successful or not, and whether they have to attack the enemy in flank, cover their own flank or to support it. That must be arranged, understood and carried out. If this distance is to be gone over it seems to be very great. In peace, the division commander holds himself with the first and second lines; in war, with the third, for this is the only force he holds in hand; but he lets it out of his control if he pushes forward into the *mêlée* in person. In war, the second line receives no orders from the division commander beyond that designating to it upon which flank it is to *echelon*. Everything else must be determined by the line commander on his own responsibility. In actual hostilities when the attack has been opened the division commander, who is with the third line or upon a height with his artillery, cannot have time to send orders to turn the enemy, to cover or support the flank of our own line, to disengage or to extend the line.

The line commanders must judge of this from the measures taken by the enemy and act accordingly. With the order to attack the second line is given its freedom, and is no longer at the disposition of the division commander.

In peace the conditions are different, the supposition which the division commander makes in respect to the enemy must first be communicated and understood.

As I have previously said, in war it does no harm, and may even be advantageous, if the second line does not strike the flank of the enemy simultaneously with the frontal attack of the first, but from one to two minutes later; and this would still be possible if the distance between the lines were increased to 500 paces, for the additional 200 would be passed over in half a minute; but at drill they prefer to see the flank detachment arrive at the exact instant.

For this reason, great latitude is left to the second line in the new regulations, although paragraph 217 expressly states that it shall follow the first at 300 paces distance, echeloned behind the designated flank; yet it is added that this relation between the lines must be kept up until the second line advances to the attack. The determination as to when the moment for this attack has arrived is, however, left entirely to the judgment of the commander of the second line.

In accordance with this regulation it is alleged that cavalry commanders of the second line should follow the movements and gaits of the first line upon which it is echeloned until the first line takes the charge. This is an erroneous interpretation of the regulations, arising from the previous peace maneuvers.

The instant chosen by the commander of the first line to order it to charge may be either too soon or too late for the second line to en-

ter upon the special duty the circumstances require of it. The enemy's strength and dispositions must be taken into consideration in determining the measures to be taken against him. It may happen that the enemy is so weak that the coöperation of the second line would be useless; or it may become apparent, long before the charge of the first line is ordered, that the enemy's front is far longer than was supposed and that an extension of the first line is absolutely necessary, etc.

When it is taken into consideration that the second line follows the first at a gallop, echeloned behind one wing, and at a distance of 300 paces, and, that it will lose 400 paces in a minute after the first line takes the charge, it is seen that at the expiration of that single minute it will be 700 paces distance from the first line. But this calculation is based upon the fallacy that the "Charge" of the first line is supposed to be the earliest moment that the second line is permitted to abandon its connection with it. This supposition will only apply to cases where the first line makes its attack without the second line knowing what it should do. In war this would indicate want of observation on the part of the commander of the second line, while in peace, at maneuvers, it would be the fault of the division commander who had failed to notify the second line, before the attack had taken place what kind of an attack he wished represented. In war the commander of the second line must look after this himself, and it is laid down as his duty in paragraph 217 of the regulations; *i. e.*, he must see whether he is: (*a*) to outflank the enemy, (*b*) to cover the flank of the first line, (*c*) support it, (*d*) to disengage it, or (*e*) to prolong it. The division commander confines himself to pointing out the object of the attack to the first line and to instructing the second line upon which wing of the first line it is to be echeloned, and then goes in person to the third line, or to the artillery.

In time of peace, and especially when maneuvers take place without an enemy, the imagination of the division commander must supply many details in regard to all these matters. When the enemy is marked, either by flags or by weak detachments, he must direct these, and the difficulties of directing the whole are thereby increased. It becomes necessary for the division commander to hold himself farther to the front in the first or second line, in order to promptly correct misunderstandings and to be able to give to the whole the character of actual war; and in order that the whole maneuver, which absorbs so much time and strength, may not be useless and that false ideas be not inculcated. The education of his command also requires that he be farther forward in order to be able to see and point out any mistakes that may occur.

This pushing of the division commander to the front in time of peace, which seems to be unavoidable, creates a condition that could not exist in time of war; and one of the evils resulting from this necessity during a prolonged peace is, that the opinion become firmly established that it is possible to lead a division of cavalry in this way during actual hostilities. It is very necessary, therefore, that no opportunity be lost to impress on all concerned the fact that, in actual operations things shape themselves differently, otherwise the customs established in peace will have become realities by the opening of the next war and cause sad losses.

According to all this it might seem easier to lead a cavalry division in war than in peace. In a certain way this is so, at least it is simplified. In war all is simple, but the simple is difficult. In war, the difficulty does not consist in the complication of evolutions, nor in the great number of arrangements to be provided for at the same time; but in the burdensome feeling of responsibility upon the division commander for the seizing of the proper instant in which to deliver the attack of the whole, as a "too soon" or "too late" can seriously increase the sacrifice and turn the effort into a failure.

Also, as I have shown above, there is less difficulty in bringing up the second line in war; for during the melee of the first line, it has a latitude of a few moments in which it can pass over a distance of 1,000 paces. The duties of the leader of the second line consist in a proper recognition of the situation, and in determining which of the five duties of the second line is demanded by the then existing conditions. If he makes a mistake in this, he will be defeated. For example: If he should move his line so as to cover the flank of the first line and, at the same time, charge the enemy's flank, when in reality he should have prolonged the line on that flank, his inner regiment will be rolled up from its outer flank while his outer regiment is rolled up from its inner flank.*

Observations and decisions must be made and the necessary commands for their execution given while the commander of the line is riding at a rapid gallop, for he, in person, should be abreast of the first line, and on the flank to which his command has been assigned.

Picture to your mind the commander of a second line of cavalry, advancing at a sharp gallop; dust, perhaps rain, blinding him; out of breath from a long gallop, he has just leaped a ditch, or hedge, in doing which his horse has stumbled and only by exerting all his

* NOTE.—Paragraph 197 of the German Cavalry Tactics of 1876 prescribes this movement. The evident idea of the author is that the oblique of the inner regiment, which is to make the "flank attack" would become so nearly a flank movement in case the flank of the enemy's line were so far out that the second line "should have extended the front line," that the outer regiment would not get out of its way by the movement prescribed in such cases and consequently the two regiments would collide and roll each other up.—TRANSLATOR.

strength has he been able to keep him up and going; he arrives on an elevation and sees the opposing cavalry galloping upon him and he must form his decision and give his commands immediately. He has no time for consideration. If he pulls up his horse and gives his commands from a halt, his line is only 300 paces behind him and reaches the spot where he is standing in less than half a minute and then his commands are too late. Should not the distance of 300 paces be considered too small rather than too great?

When the situation above described is made clear to the mind it becomes evident how very much more difficult it is to lead a cavalry brigade in a cavalry division, or a cavalry division itself, than an infantry brigade in a infantry division, or an infantry division itself. In the latter there is plenty of time to consider; and the general can give his commands after quietly considering the pros and cons of the situation with field glass and map in hand.

How many characteristics must be united in a commander of cavalry, (be it a regiment, brigade or division) that he may be capable of performing the duties of his position! He must be a good cross-country rider and lead or excel in everything. He must be an enduring rider whom neither the exertions of a day and night nor a very long hunting gallop can tire. He must have an eagle eye, for he has no time to consult his glass, and spectacles would become darkened by dust and rain. He must be a man of quick decision and firm will; for he has not time for consideration or to recall commands once given. His position demands all these characteristics of him, and, in addition to these, all the main characteristics that are demanded of every officer of all arms.

The difficulties are still further increased when the cavalry mass strikes the enemy on the march and must form up for the attack, in three lines, from the column in march. I have mentioned this in my twelfth letter. When the cavalry mass marches upon several parallel roads, cases may arise requiring that a brigade, or even a regimental, commander be capable of the highest strategical comprehension, if he is to reconcile the orders he has received with the then existing situation of the enemy, which a closer approach has shown to be very different from that which was supposed to exist when his orders were given to him. It is not enough that he be a trooper fully acquainted with the elements of his arm; but he should thoroughly master the elementary and practical tactics of all arms and also strategy.

When one considers the many qualifications that are necessary to make a good cavalry leader he will be slow to sharply criticise minor faults that may force themselves upon his notice.

NARRATIVE OF A DOCTOR'S EXPERIENCE AS A LINE
OFFICER AND COMBATANT, IN THE FALL OF 1860.

THE incidents and events here described happened so long ago, that they have become shadowed and dimmed by time; but, at the urgent request of an old friend with whom I have shared my blankets on the old frontier, before it was ruined by railroads and modern improvements, I venture on the indulgence of the reader with a view of preserving a record for the benefit of the service, of happenings in which I have always taken great pride as a medical officer and a soldier.

February, 1859, found me back at my post of duty at Fort Fillmore, N. M., after a hard and severe winter campaign with Captain WASHINGTON L. ELLIOTT, of the Mounted Rifles and other officers, against the Pinal Apache, north of the Gila River, in and around the Pinal Apache Mountains, Arizona Territory. Being young, strong, active and ambitious, I went to work to build up a practice in my profession, which I soon succeeded in doing in the neighboring villages of La Mesilla, Las Cruces, Doña Aña and the scattered ranches along the river valley; I had patients from as far as Sonora and Chihuahua, Old Mexico. I had bought a fine team of Kentucky thoroughbreds from Lieutenant WM. B. LANE, Mounted Rifles, that he had trained to run in harness in case the Indians ever got after him; a very necessary precaution in that wild and unsettled country, for they were likely to turn up unexpectedly at any moment.

Rumors by mail had reached us from "Department Headquarters" Santa Fé, N. M., that a winter campaign was to be made against the Navajo Indians in New Mexico during the coming winter of 1860-61. I had been post surgeon at Fort Defiance in the heart of their country, for over a year and a half, and had then gone through a war waged against them, under the command of Colonel DIXON S. MILES, Third U. S. Infantry; and having afterward gone through another Indian campaign out in Arizona, I knew it was not my detail for the field, so I settled down to business and practice at Fillmore, confident that I would not be called upon, for there were other medical officers avail-

able in the Department who, I knew, had not been in the field. Suddenly and unexpectedly, there came an order from Department Headquarters at Santa Fé, for me to proceed immediately to Fort Craig, N. M., and to report for duty with a column of troops organized to operate against the Navajoes in the coming winter campaign. I had only a very few days to fix up my business affairs; public property, as well as private, was left in the care of a hospital steward, in whom I had no great reliance, and who afterwards turned out to be a rascal. This was the second time I had to drop everything to obey orders; both times I lost nearly all I left, but many other officers had the same luck. I was off in a few days over the "Jornada del Muerto" with an escort of a corporal and three or four men with two pack mules, one carrying the hospital panniers, the other for my own use. The distance to Fort Craig was about one hundred and twenty miles, one hundred without any water. On my arrival, I found that the column of troops, two companies of infantry and one of Mounted Rifles, under command of Captain LAFAYETTE McLAWS, Seventh U. S. Infantry, (afterwards a distinguished soldier in the C. S. A.) had left two days before. Knowing the fact that a stern chase is a long one, I determined at once not to halt long, but to push ahead as soon as possible. So after a short halt, during which time the medical officer on duty at Craig, whose work I was doing, but whose family, as usual in those days, couldn't spare (?) him, did not do me even the scant courtesy of calling on me. I overtook the command at the village of Picacho (then Pulvedero) on the right bank of the Rio Grande. From this place Captain McLAWS had orders to go west over a trail and through a pass in a range of mountains known as the "Sierra de los Ladrones" (Robber Mountain).

My escort was now relieved and ordered back to Fillmore.

The command consisted of Company "D," Seventh Infantry, under Captain McLAWS, Company "K," Seventh Infantry, under Lieutenant AUGUSTUS H. PLUMMER, and Company "G," Mounted Rifles, First Sergeant FALVEY, commanding, no officer being present. Lieutenant PLUMMER was A. A. Q. M. of the column and Captain McLAWS commanded the entire force. We also had some fifteen Mexican guides and packers.

The route of the column was well selected, strategically speaking, as we would flank any of the tribes that might be fleeing from their own country, down into and toward Arizona. But it was altogether a new route for troops with a pack train; indeed, I doubt that any troops had ever gone over this route before, at least, since the days of the early Spanish Conquerers.

There was no commissioned officer with Company "G," of the Mounted Rifles, a circumstance not unusual in those ante-bellum days, when it seldom happened that there was more than one officer on duty with a company. The distance was so great and the journey so tedious, that it took months for an officer to reach his post and company, where it now takes only as many days; so that when an officer got into "the states," and had any kind of a social or political pull, he generally managed to stay away until it suited him to join.

It was now the most delightful month of the year, that of October; the bosque of cottonwood trees was full to overflowing with numbers of mocking birds, whose varied and beautiful notes filled the air and made it tremulous with song and rich melody; the mountains bathed in liquid blue appeared so vast in their deep, grand quiet, that it seemed almost profane to disturb their majestic rest; however, grim war knows no seasons, knows neither poetry nor sentiment, and orders had to be obeyed. Company "G" was about sixty men and horses strong, all in good condition for the field; the men were nearly all old soldiers, but there were in the company a few raw recruits who had only lately joined. The first sergeant's name was JOHN FALVY, afterwards commissioned as an officer. Other non-commissioned officers were Quartermaster Sergeant RANCH, Duty Sergeants JOHN COX, JAMES McCORMICK and THOMAS BRIERLY. The names of the corporals escape my memory. Our chief guide was a venerable old Mexican, who lived near Las Lunas, N. M. A day or two after starting, Captain McLaws told me, while riding along at the head of the column on the trail, that he was going to put me in command of Company "G," for the purpose of communicating with the non-commissioned officers, as he found it difficult to make them understand what he wanted done, and he must have a commissioned officer in command in order to do full justice to the company, and prevent dissatisfaction among the men. He explained that my duties would be to ride at the head of the company, camp with it, sign the morning report, make the guard detail, and report to him every evening for orders. This was in addition to my duties as assistant surgeon of the command. That evening the order was issued (unfortunately it has been lost, although carefully preserved for years), and was promptly obeyed. The next morning found me at the head of my company, with which I camped and slept for the next fifteen days, thoroughly identifying myself with the non-commissioned officers and men, watchful of their interests and rights, allowing no gouging (?) by the infantry officers, who were in the majority, in guard or picket details, signing company reports, etc.

I take pleasure in bearing testimony that no one could have had command of braver, more gallant and trustworthy soldiers than those men proved themselves to be. Since then I have accidentally had the pleasure of meeting several of them, and always find them in places of trust and honor, as ordnance sergeants, etc. I take occasion now to acknowledge the assistance rendered me in writing this article by Mr. JOHN I. HANLON, late private Company "G," Regiment Mounted Rifles, now and for many years a trusted messenger in the Army Medical Museum, Washington, D. C.

Our trail was very rough, and so steep and precipitous in many places as to endanger the safety of the packs, ammunition and animals, necessitating unloading, leading the animals and carrying by hand. One day, shortly after I fell in command of the company, when waiting for the infantry to close up, it struck me that it would not be a bad idea to see how Company "G" drilled, for we were out for a fight, and one was likely to occur any day. We had struck a nice open piece of ground, suitable for the purpose, and Sergeant FALVY was ordered to drill the company at skirmish drill, dismounting and preparing to fight on foot. The sergeant hesitated some little time before he caught on to what was said, as if he hadn't heard me distinctly; and so the order was repeated, when he gave the required commands. I will here remark that I had had an experience of three years, and this was my third Indian campaign with the Second Dragoons and Regiment of Mounted Rifles, with such soldiers as RICHARD S. EWELL, R. S. C. LORD, WASHINGTON L. ELLIOTT, JOHN P. HATCH, WM. B. LANE, WM. W. AVERELL, F. I. CRILLY and others, and I had quietly and almost insensibly picked up a good many points about mounted drill. After coming right into line, Nos. 1, 2 and 3 had dismounted and deployed as skirmishers, No. 4 sitting in his saddle. I quietly rode down the line, and found, to my surprise, fully one-half of the horses standing with their bridles loose and unsecured by No. 4. This would have been, in a fight, a probable cause of a stampede. I called Sergeant FALVY from the skirmish line, took him along the company line and showed him the great peril they would be in if a fight was to take place. The recall was sounded. The men were shown their mistake, instructions were given them how to act, and the drill was repeated. This time I found only a few loose reins; again the recall was sounded and the drill was repeated; they were now told that whoever was found so indifferent and careless as to neglect securing his horse, would get an extra hour of guard and picket duty that night. No more mistakes happened after this, and the drill was kept up daily for from a half hour to one hour, so that, when I

was relieved of the command by Lieutenant E. P. CRESSY, Mounted Rifles, I had the pleasure of turning over a well drilled and well set up company of mounted riflemen.

FALVY and the non-commissioned officers were terribly cut up and deeply mortified at the ignorance shown by the company, and were profuse in their apologies and explanations as to the reasons, all of which I knew personally to be correct.

Some few days after getting through the pass, and back of the mountains, we camped in a beautiful vale near a fine spring of pure water. Near this camp I found on top of an isolated rock, covered over with a growth of large piñons and oaks, quite a well preserved ruin of an ancient village or fort; steps had evidently been made to its top, up through a narrow passage, that could readily be defended by a few men. The houses were small in size and oblong, to suit the shape of the top of the rock. The ruin consisted of an outside wall of small square stones, a large portion of which was yet standing. Inside there were apparently many small and separate rooms, abutting against the wall, in each one of which was an opening as if for a port hole, for use in defense. Opposite these there was a larger room or rooms, apparently the residence of the captain or chief. The thought has often occurred to me since, that this might have been the ruins of a bandit's den; and it is possible the mountain range in this way got its name "*Sierra de los Ladrones*."

The trail led us through a heavily timbered country, fairly well watered, and now and then we would pass through lovely little secluded valleys, in one of which we usually camped for the night. At one of these camps the spring was unusually large, discharging a great volume of pure, sparkling water; and the men of the command honored me by giving it my name, but the map-makers had no correspondent along, and the compliment is now undoubtedly lost to fame.

The mounted company always led the way out of camp, and, with the guides, was the pioneer of the column. I had instructions about selecting camp, and remember coming, one evening, into a lovely little valley, shut in by hills and mountains, with a limpid, sparkling, laughing mountain stream bubbling and purling through its length. The left bank, which was elevated and covered over with a fine forest of noble pine trees, was selected by me for the infantry companies. The right bank was fringed near its edge by a heavy growth of alder bushes; the company was halted among them, horses were unsaddled and mules unpacked. In the mean time I had gone over to Captain McLAW's camp to get orders and instructions for the night,

as to guard, etc. On my return, I saw that the servant had spread my blankets, fixed the pillow, and had gathered and tied some bushes over it, so as to protect me by their shade from the hot sun. The lay out was very tempting to a tired man, so taking off my coat, and without looking for or expecting anything, I knelt at the foot, and let myself fall at full length. As my head struck the pillow the ominous and fearful buzz of a rattlesnake struck my ear; you can judge that I fooled away no time in getting off that pillow and bed. The sergeants told me that the men had killed quite a number of the reptiles, and they thought we had got into a den. Fortunately no one was bitten; the one that had made himself so familiar and home-like under my pillow was a fine specimen, was promptly killed, and the company was as promptly moved out of the bushes into the open. I suppose there are very few persons who ever got so close to a rattler and escaped. For years after I would recall, in my sleep and dreams, that beastly and horrible noise.

I recall one hot day, when the company had dismounted, and was following a narrow trail up a steep hill; one of the Mexican guides rode rapidly back from its crest, and said, in great excitement, that there were "muchos Indios" in the valley over the hill in front of us, and that they were riding fast to escape. At once, in order to prevent their escape, the company was ordered to mount and move forward as rapidly as the trail allowed. When we gained the open valley, I saw several mounted Indians fleeing as fast as their ponies could carry them. The order was given to draw pistols and charge. The Indians were soon overtaken, and the shooting became general and very lively on both sides, more particularly on ours; indeed, being at the head of the company, I soon realized that I was between two fires, and ordered a halt and to cease firing. It turned out that our guide was mistaken as to their number, or that I misunderstood him, more probably the latter, as my knowledge of Spanish was then very limited. On finding only a small party, one of the sergeants and a few men were detailed to pursue them. After our arrival at Camp Fauntleroy, several of our men were ambuscaded and wounded between our camp and the main camp of infantry, which was a mile distant, no doubt in revenge for this charge. My connection with this affair has given me some qualms of conscience, for I was not sure but that these Indians we had charged on were peaceful Pueblos, and I never made any report but a verbal one to Captain McLaws.

I recall most vividly our winding down the mountain and our arrival at Camp Fauntleroy, now Fort Wingate, N. M., and our reception by the officers and men assembled, evidently to see a doctor in

command of a cavalry company. I was very proud of my company, and of the honor conferred upon me by Captain McLaws. My young friends gathered around my horse, and showered congratulations on me. The idea of a doctor having had command, with such highly satisfactory results of a company of mounted riflemen, was novel, and gave rise to any amount of camp talk and gossip.

During our halt the company dismounted and stood to horse, and although showered with invitations from different officers to come down to their tents and have an old-fashioned army toddy, such as can be made only at frontier posts, I steadily, but firmly, declined to leave my place at the head of the company; and when our camp, one mile distant, was selected and assigned us, I conducted Company "G" to it and saw them settled therein. I was very soon relieved of the command by Second Lieutenant Edward P. CRESSY, Mounted Rifles, by order of Major Henry H. SIBLEY, Second Dragoons, commanding cavalry; but never an order or a word was issued in compliment for my unusual but successful services as a line officer and combatant. However, I was considerably consoled when I went to Major JAMES LONGSTREET, Paymaster U. S. A., a gentleman and a soldier, (afterwards a distinguished officer, C. S. A.) to draw that month's pay, and was directed by him to enter my services as commanding officer of a company of mounted riflemen for fifteen days, with the assurance that he would pay it. At that time, it must be remembered, company officers drew ten dollars a month extra pay for commanding companies; I did so, and was paid five dollars in gold, which was carried for many months as a memento.

* * * * *

I have been informed incidentally, that there is no record on file in the War Department in Washington, as to the organization and march of this column of U. S. troops in the Navajo Indian campaign of 1860-61. If that is so, it would then appear that this is the first and only account ever recorded or furnished by the only living officer now in the service who participated in these stirring scenes.

Brevets were then unknown, excepting a few among the old officers of the line, who had been in the Mexican War. The only medical officer ever brevetted then, was Brevet Brigadier General T. LAWSON, Colonel and Surgeon General U. S. A. No hope of any such reward animated me in the discharge of what proved to be a thankless duty, but my impulses were of a high, chivalrous character; duty, honor, and pride—always good working capital for a soldier, an officer and a gentleman.

Often and often, since these events, the thought has suggested itself that had any fatality happened me, particularly when leading that charge of Company "G," little sympathy would have been given me, and it would have been remarked: "Well, it is a pity, but really he had no business to be where he was, for a doctor's proper place is in the rear with the rear guard and pack train."

J. C. McKEE,

Lieutenant Colonel and Surgeon, U. S. A.

"COLONNADE HOTEL,"

PHILADELPHIA, PA., December, 1890.

THE UNITED STATES CAVALRY IN THE MEXICAN WAR

THERE has been so much written of late years on all arms of the service, and on the armies and wars of all nations of the earth, that it seems a hopeless task for one entirely inexperienced in writing to even think of interesting the majority of the readers of the *CAVALRY JOURNAL*—especially our young strategists and tacticians—in regard to what our cavalry in Mexico did or failed to do. But those who read the *JOURNAL*, and other periodicals, have fed on blood and iron (?) so long that it may be to their advantage to *diet* a little, and to take something there will be no difficulty in digesting, and that will not cause sleepless nights; besides, we are told to “remember the days of small things.”

If some one who could do it well, would tell the story of the Mexican War, it might and ought to be interesting reading to our young officers—the future GRANTS, SHERMANS, THOMASES, HANCOCKS, SHERIDANS and MEADES—and even the old gray-heads, who find it such a long road to *sixty-four*, would undoubtedly find something pleasant to recall, and something to warm the cockles of their patriotic old hearts, when again listening to the stories of Monterey, Buena Vista, Cerro Gordo, Contreras, Cherubusco, Molino del Rey, Chapultepec, and the San Antonio, Belen and San Cosme gates. I do not expect to “fill the bill,” but only hope to bring to mind a few occurrences which have almost faded from memory, but are well worth recalling.

Whoever will read the few imperfect histories and the official reports and documents, relating to the Mexican War, or who talks with the survivors of that contest, cannot fail to be impressed with the heroism of the whole army; nor will he be less impressed with the great necessity of each arm and branch of the service to all the others—the proportion of each depending on the object to be accomplished, the nature of the country to be fought over, the character of the enemy and of our own troops, and other circumstances.

Before following up the cavalry in the different armies engaged in prosecuting the war against Mexico, it might be well to locate some

of the companies of the regular cavalry regiments, as well as the volunteers, in order to understand under what difficulties they labored to be efficient, and to establish anything like an *esprit de corps*. When the war with Mexico began, there were, as is well known, only two regular cavalry regiments—the First and Second Dragoons. Soon after the battles of Palo Alto and Resaca de la Palma, the Regiment of Mounted Riflemen was added to the regular forces, but in consequence of the loss of most of the horses of this regiment in the Gulf of Mexico, eight companies of it served on foot during the remainder of the war, and these eight companies, as well as the two that were mounted (Captains RUFF and WALKER's) came out of Mexico with a reputation for drill, bravery and dash, unsurpassed by that of any regiment, either regular or volunteer, in the whole army.

In 1846, just prior to the battles of Palo Alto and Resaca de la Palma, General TAYLOR had with him at or near Point Isabel, seven companies of the Second Dragoons, and a few Texas Rangers under Captain SAMUEL H. WALKER. The other three companies of this regiment were at or near Fort Washita, "Arkansas Territory," and finally joined General Wool's column at San Antonio, Texas, and marched with it into Mexico. The Second Dragoons never served as an entire regiment during the war; part of it remained in the northern theatre while General SCOTT withdrew the remainder for the siege of Vera Cruz. The seven companies of the Second Dragoons had marched from old Fort Jessup, Louisiana, and joined TAYLOR at Corpus Christi. The companies of the First Dragoons are found late in 1846 and early in 1847, in different parts of the country, thousands of miles (and many months, if consolidation had been thought necessary) apart. Three companies of this regiment were in New Mexico, comprising a part of Colonel PRICE's command under Captain BURGWIN. Two or three companies (one hundred men) were under General KEARNEY, en route to, or in California, and two companies at Fort Gibson, one at Jefferson Barracks, afterwards under Generals WOOL, TAYLOR, SCOTT, etc. The larger portion of the Regiment of Mounted Riflemen was organized at Jefferson Barracks, in the fall of 1846; but Captain MASON's company, and a portion of Captain WALKER's (Company "C") were recruited in Baltimore, and embarked for Point Isabel in September, 1846. But WALKER was still serving with General TAYLOR's army as a "Ranger," and did not get his order to go north under his new appointment until October 1, 1846. Captain RUFF recruited his company ("I") in Mobile, and the regiment as a whole, never served together during the war. Then of the ten new regiments (sometimes called regulars) to serve for the war, we hear of

three companies of the Third Dragoons being organized, under General HARNEY, near San Antonio, Texas; and other companies, later on, serving with General SCOTT's army. And thus it was throughout the entire war; but whether together or in detachments, recruits, old soldiers serving mounted, on foot or on *mules*, the cavalry in Mexico made a reputation of which every man of that arm should be proud. And if it be considered from a commercial point of view, and the small numbers viewed as samples from the depot of supply, some idea can be formed of the great numbers and superior quality of cavalry which could be furnished in case of future requirements. Some few of the three and six months independent companies of cavalry from the more southern states ("Rangers," etc.,) did good service, but the very short term and the question as to the legality of the muster-in for six months gave so much annoyance to General TAYLOR and the authorities at Washington, that it became necessary for Congress to authorize twelve months men, and to receive no volunteers for a shorter period. Under this authority some splendid regiments and companies were raised, but still the time was too short.

All who are at all familiar with the history of the Mexican War know what splendid fighting was done, by regiments and companies raised immediately after the call, under this authority, at Monterey, Buena Vista, Vera Cruz and Cerro Gordo. Tennessee furnished a splendid cavalry regiment. It was mustered-in in June, 1846, at Memphis, Tenn., and marched under its Colonel (THOMAS) for the Rio Grande, through Arkansas and Texas to Matamoras, and was there attached to General PATTERSON's column, which was then forming for the march to Tampico on the Gulf. This regiment, after making that long march via Victoria, finally took ship at Tampico, in March, 1847, for Vera Cruz, and landed there during the investment; the horses coming later, were landed about the time of the surrender. By the time the army reached Jalapa, it was thought by General SCOTT that the term of service of this fine regiment was too near its close to take it further into the interior of Mexico, and it was ordered back to Vera Cruz to be sent home and mustered-out of the service. It was a splendid regiment, and after the very long march from Memphis, Tenn., to Tampico, the horses were in good serviceable condition; and, if the regiment could have been retained in service six months longer, it would have been of incalculable value in keeping the road from Vera Cruz to the City of Mexico clear of guerillas. Colonel MARSHALL's Kentucky cavalry regiment had already passed over almost the same route through Arkansas and Texas that was afterward taken by this Tennessee regiment. MARSHALL finally joined

TAYLOR's army, and, at Buena Vista made for himself and regiment a reputation that will be remembered as long as there is a Kentuckian left in the land. The Arkansas cavalry regiment, under that glorious fighter, Colonel YELL, went into Mexico with WOOL's command from San Antonio, and finally joined TAYLOR's army, and made a name that will last as long as the memory of Buena Vista; but on that bloody field he and many of his men fought their last fight. Colonel DONIPHAN's First Missouri Cavalry, was organized in June, 1846, and formed part of Colonel (soon after General) KEARNEY's column ("Army of the West") on the march to New Mexico. The Second Missouri Cavalry was organized in August, 1846; and, under Colonel PRICE, followed KEARNEY to New Mexico, and remained there and at Chihuahua, until the close of the war. Both of these regiments marched from Fort Leavenworth. After the affairs in New Mexico were put in working order, laws made by General KEARNEY for the government of the Territory, etc., he (KEARNEY) gave orders (before leaving for California) for DONIPHAN to make an expedition with his regiment into the Navajo country for the purpose of making peace with those Indians. After this, he (DONIPHAN) was directed to report to WOOL in Chihuahua. When these matters were thus satisfactorily arranged, KEARNEY, with six companies of the First Dragoons under Major SUMNER, and two mountain howitzers, left Santa Fé on the 25th of September, 1846, for California. He crossed the Rio Grande at Albuquerque and, after marching down the right bank of that river until the 5th of October, met KIT CARSON with sixteen men, and with mail for Washington, from Commodore STOCKTON and Lieutenant-Colonel FREMONT. In consequence of the supposed favorable news brought by CARSON, KEARNEY took one hundred of the three hundred dragoons, and the two mountain howitzers as escort, and KIT CARSON as guide, and commenced his march for California, leaving the other companies of the regiment in New Mexico, under SUMNER.* His route was via the "Copper Mines," the Gila River, etc., etc.

At the risk of "telling a thrice told tale," it is now proposed to give a few particulars relating to some of the marches and combats of our cavalry in Mexico.

As is known by all who have read the accounts, the battle of Palo Alto was principally won by our artillery—because the Mexicans seemed to be intent on dismounting or silencing our guns, while our

*Captain SUMNER formed part of General KEARNEY's command, but en route, or in New Mexico, received notification of his promotion to Major Second Dragoons, and early in 1847, he was in command of the Regiment of Mounted Rifles at the mouth of the Rio Grande.

battery commanders appeared to think killing as many Mexicans as possible was the right thing to do; and it was easily done, in consequence of the bad handling of the Mexican infantry. They were crowded together in such masses about their guns as to give the idea that they were being set up for our guns to knock down—and they were knocked down at a lively rate. However, although the artillery did most of the work in this battle, the infantry and cavalry were in the right places and ready for any emergency, and did all that was necessary on that day. On the next day, at Resaca de la Palma, the opportunity for the artillery was not so good, but the infantry and cavalry were handled to the best advantage.

It not being the intention to write a history of this battle, all that is necessary will be to let others who were on the ground speak. It will be remembered Captain THORNTON's squadron (Captain HARDEE second in command) had been captured on the 25th of April, and was not exchanged until the 11th of May. Captain KER's squadron during the day, May 9th, was guarding the train in rear, which left but little available cavalry. Captain MAY says:

"On the morning of the 9th my squadron was actively employed in reconnoitering the chapparal in advance of the field of the 8th, and on the approach of the army I took my position as the advance guard. When about half a mile from the position which the enemy were reported to have taken, I was ordered to halt and allow the artillery and infantry to pass, and to await further orders. I remained in this position about three-quarters of an hour, when I received orders to report with my squadron to the general. I did so, and was ordered by the general to charge the enemy's batteries and drive the men from their pieces, which was rapidly executed, with the loss of Lieutenant INGE, seven privates and eighteen horses killed, and Sergeant MULEY, nine privates and ten horses wounded. Lieutenant SACKETT and Sergeant STORY, in the front by my side, had their horses killed under them, and Lieutenant INGE was gallantly leading his platoon when he fell. We charged entirely through the enemy's batteries of seven pieces; Captain GRAHAM, accompanied by Lieutenants WINSHIP and PLEASANTON, leading the charge against the pieces on the left of the road, and myself, accompanied by Lieutenants INGE, STEVENS and SACKETT, those on the direct road; and gained the rising ground on the opposite side of the ravine. The charge was made under a heavy fire of the enemy's batteries, which accounts for my great loss. After gaining the rising ground in the rear I could rally but six men, and with these I charged the gunners who had regained their pieces, drove them off, and took prisoner General LA VEGA, whom I found gallantly fighting in person at his battery. I ordered him to surrender and on recognizing me as an officer, he handed me his sword. I brought him, under a heavy fire of their artillery, to our lines, accompanied by Lieutenant STEVENS and a sergeant of my squadron. I then directed

Lieutenant STEVENS to conduct him in safety to our rear and present his sword to the commanding general. * * *

General TAYLOR said: "The charge of cavalry against the enemy's batteries on the 9th, was gallantly led by Captain MAY, and had complete success."

And Colonel TWIGGS adds the following: "After the unsurpassed, if not unequalled charge of Captain MAY's squadron, the enemy was unable to fire a piece."

The strength of the Mexican army in these two battles was over 4,000 men with eight pieces of artillery; that of the American army, 2,111 men and eleven pieces of artillery.

Further comment on the action of the cavalry on this day seems unnecessary. However, it will be excusable to say that General TAYLOR knew how and when to use cavalry, and that his cavalry commander knew how to execute his orders.

Before following up another cavalry organization, it would not, perhaps, be out of place to call to mind what was being done and what was in contemplation, just after the battles of Palo Alto and Resaca de la Palma.

Captain THORNTON's squadron of dragoons was captured on the 25th of April, 1846. The next day General TAYLOR used the authority already given him and called for an "auxiliary force" of 5,000 men from Louisiana and Texas; and before he had crossed the Rio Grande and had taken Matamoras, on the 18th of May, these troops began to arrive at Point Isabel (twenty-seven miles distant), as also did the troops in great numbers called for (without authority) by General GAINES, who was at that time stationed in New Orleans, and second in command in the army to SCOTT. The troops were rapidly forwarded without apparent thought as to what disposition would be made of them when they reached General TAYLOR; for they could not be made available for campaign purposes, for the want of nearly everything, especially transportation on the Rio Grande, and on land. On account of the short term of service of these troops (three and six months) and the non-arrival of transportation, coupled with the illegality of the muster-in of men for six months, it became necessary to send nearly all of them home to be mustered out of the service.

The army having crossed the Rio Grande (on the 18th), and having taken Matamoras, Lieutenant-Colonel GARLAND was sent the next day with all the cavalry in pursuit of the retreating Mexican army. After a march of twenty-seven miles, GARLAND attacked and dispersed the rear guard of the Mexican army and took a few prisoners. He continued the pursuit for sixty miles, but on account of his small

numbers, the condition of his horses and the scarcity of water, he returned to Matamoras.

Towards the end of June, the twelve months' volunteers began to arrive at Point Isabel and Brazos Santiago; but up to the middle of July hardly anything had been done towards forwarding troops or stores in the direction of Camargo. However, by the 1st of August, General TAYLOR's army finally assembled at that place, and by the 8th, General TAYLOR arrived in person, and established his headquarters at that point. By the 19th, the movement of the army (regulars and twelve months' volunteers) on Monterey began, the result of which is too well known to repeat. The following extract from General TAYLOR's order No. 108, of August 28, 1846, will explain why he left behind about as many troops (6,000) as he took with him:

"The limited means of transportation, and the uncertainty in regard to supplies that may be drawn from the theatre of operations, imposing upon the commanding general the necessity of taking into the field, in the first instance, only a moderate portion of the volunteer force now under his orders."

It may be well to quote from RIPLEY concerning the action of the cavalry at Monterey, as follows:

"The regiment of Eastern Texans had been ordered up by General TAYLOR and, led by Governor HENDERSON, entered the city dismounted, at 11 o'clock in the morning; joining with DAVIS's riflemen, the two regiments used their rifles with good effect, gradually driving back the enemy in the direction of the Plaza, etc."

This cavalry regiment was fighting on foot in the streets of Monterey, and did not seem at all embarrassed by the fact of having, somewhere in the rear, horses on which to get away, or change the scene of operation, if it became necessary.

On June 11, 1846, the Adjutant General of the Army, by order of General SCOTT, directed WOOL, as soon as he completed certain duties in Cincinnati, to proceed to San Antonio, Texas, and "assume command of the regulars and volunteers ordered to that point."

The destination of this column of troops was Chihuahua, and, although under the immediate command of General WOOL, its operations, as per authority of the Secretary of War, were to be under the control of General TAYLOR, if he saw proper to exercise it.

August 14, 1846, TAYLOR, from Camargo, directed WOOL, after the organization of his column, to "march on the City of Chihuahua with such portion of it as could be transported and subsisted." A column of regulars and volunteers, amounting to about 3,000 men, was finally formed, and its advance left San Antonio on the 26th of September, reaching the "Presidio" on the Rio Grande at a point between old

Fort Duncan (Eagle Pass) and Laredo, October 8th, and crossing into Mexico October 11th. The troops comprising this column consisted in part of three companies of the Second Dragoons, two of the First Dragoons, Washington's Light Battery, a few companies of the Sixth Infantry, to which was attached one company of Kentucky infantry (perhaps JOHN S. WILLIAM'S), one regiment (Colonel YELL'S) Arkansas cavalry and two regiments of volunteer infantry. All the volunteers were twelve months' men. It is hardly necessary to state that this column of troops never reached Chihuahua, as both Generals TAYLOR and WOOL thought it unnecessary, after the capture of Monterey. Neither is it worth while to follow the march of the column from the Rio Grande to Monclova and Parras, until its final absorption into TAYLOR'S army near Monterey.

As already stated, General KEARNEY left Santa Fé, N. M., on September 25, 1846, for California, via "the Copper Mines" and the Gila river, etc. It is, perhaps, as well to follow him to California, before giving attention to the execution of his (KEARNEY'S) orders left in New Mexico for Colonel DONIPHAN.

KEARNEY, with his one hundred dragoons and the two mountain howitzers as escort, after marching down the Rio Grande about two hundred miles below Albuquerque, left the river, October 15th, and marched west for the Copper Mines, reaching that point on the 18th and the Gila river on the 20th, and on the 22d of November reaching the mouth of the Gila. On the 2d of December the party reached WARNER'S ranch (Agua Caliente), a frontier settlement of California. On the 5th, they met a small party of mounted volunteers under Captain GILLESPIE, with news from Commodore STOCKTON, after which they encamped at the Santa Maria ranche, within forty miles of San Diego. Captain GILLESPIE brought the news that some six or seven hundred Californians were under arms and in the field, determined to oppose the authority of the United States as best they could. He also informed General KEARNEY that there was an armed party of Californians at San Pasqual, three leagues distant, on the road to San Diego. KEARNEY sent Lieutenant HAMMOND, First Dragoons, and a few men to make a reconnaissance. He returned to camp at two o'clock on the morning of the 6th, and confirmed GILLESPIE'S report, and preparations to march for San Pasqual, in order to attack the party, were begun.

Before quoting KEARNEY'S report of what occurred on this day and during the next two or three days, it would be well to remember what this little body of cavalrymen had accomplished since June. They had marched across the plains from Fort Leavenworth to Santa Fé,

had made an expedition down the Rio Grande below Albuquerque to look after some supposed trouble and returned to Santa Fé, and had then marched from Santa Fé to San Pasqual, California. It was now the 6th of December, 1846. Any old cavalryman who served in southern New Mexico and Arizona before the war of the Rebellion can readily imagine the probable condition of this little party; how dirty, tired, worn-out and hungry they must have been. In those days there were no canned vegetables or fruits, no posts en route from which to refit, no towns nor settlements, no sutler's stores nor can-tees, but one long stretch of desolation, varied once in a while by the sight of Indians and a little game. The party had just completed, from Santa Fé, its one thousand and fifty miles, but between it and salt water, friends and vegetables (not forty miles away), was an armed party of twice its size to be disposed of. General KEARNEY says:

"HEADQUARTERS ARMY OF THE WEST,
SAN DIEGO, UPPER CALIFORNIA, December 13, 1846.

SIR:—In my communication to you of yesterday's date, I brought the report of the movements of my guard up to the evening of the 5th instant, in camp near a ranch of Mrs. STOKES, (Santa Maria,) about forty miles from San Diego. Having learned from Captain GILLESPIE, of the volunteers, that there was an armed party of Californians, with a number of extra horses at San Pasqual, three leagues distant on a road leading to this place, I sent Lieutenant HAMMOND, First Dragoons, with a few men to make a reconnaissance of them. He returned at two in the morning of the 6th instant, reporting that he had found the party in the place mentioned, and that he had been seen though not pursued by them. I then determined that I would march for and attack them by break of day; arrangements accordingly were made for the purpose. My aide-de-camp, Captain JOHNSTON, First Dragoons, was assigned to the command of the advanced guard of twelve dragoons mounted on the best horses we had; then followed about fifty dragoons under Captain MOORE, mounted, with but few exceptions, on the tired mules they had ridden from Santa Fé, (New Mexico,) 1,050 miles; then about twenty volunteers of Captain GIBSON's company under his command and that of Captain GILLESPIE; then our two mountain howitzers with dragoons to manage them, under the command of Lieutenant DAVIDSON of the regiment; the remainder of the dragoons, volunteers, and citizens employed by the officers of the staff, etc., were placed under the command of Major SWORDS, (quartermaster) with orders to follow on our trail with the baggage and to see to its safety. As the day (December 6th) dawned, we approached the enemy at San Pasqual, who was already in the saddle, when Captain JOHNSTON made a furious charge upon them with his advanced guard, and was in a short time after supported by the dragoons, soon after which the enemy gave way, having kept up from the beginning a continued fire upon us; upon the retreat of the

enemy, Captain MOORE led off rapidly in pursuit, accompanied by the dragoons mounted on horses, and was followed, though slowly, by the others on their tired mules. The enemy, well mounted and among the best horsemen in the world, after retreating about half a mile, and seeing an interval between Captain MOORE with his advance and the dragoons coming to his support, rallied their whole force, charged with their lances and, on account of their greatly superior numbers, but few of us in front remained untouched; for five minutes they held the ground from us when, our men coming up, we again drove them and they fled from the field, not to return to it, which we occupied and encamped upon. A most melancholy duty now remains for me; it is to report the death of my aide-de-camp, Captain JOHNSTON, who was shot dead at the commencement of the action; of Captain MOORE, who was lanced just previous to the final retreat of the enemy; and of Lieutenant HAMMOND, also lanced, and who survived but a few hours. We had also killed, two sergeants, two corporals, and ten privates of the First Dragoons; one private of the volunteers, and one man engaged in the topographical department. Among the wounded are myself (in two places), Lieutenant WAMER, topographical engineers (in three places), Captain GILLESPIE and Captain GIBSON of the volunteers (the former in three places), one sergeant, one bugler, and nine privates of the dragoons; many of them receiving from two to ten lance wounds; most of them were unhorsed, and incapable of resistance. Our howitzers were not brought into action.

* * * * *

"The enemy proved to be a party of about one hundred and sixty Californians, under ANDREAS PICO, brother of the late Governor. The number of their dead and wounded must have been considerable, though I have no means of ascertaining how many, as just previous to their final retreat they carried off all excepting six. The great number of killed and wounded proves that our officers and men have fully sustained the high character and reputation of our troops, and the victory thus gained over more than double our force may assist in forming the wreath of our national glory. I have to return my thanks to many for their gallantry and good conduct on the field, and particularly to Captain TURNER, First Dragoons, (A. A. G.) and to Lieutenant EMORY, (Topographical Engineers,) who were active in performance of their duties and in conveying orders from me to the command.

"On the morning of the 7th, having made ambulances for our wounded, and interred the dead, we proceeded on our march. The enemy showed himself occupying the hills in our front, which they left as we approached, till reaching San Barnardo, a party of them took possession of a hill near to it and maintained their position until attacked by our advance, who quickly drove them from it, killing and wounding five of their number, with no loss on our part.

"On account of our wounded men, and upon the report of the surgeon that rest was necessary for them, we remained at this place till the morning of the 11th, when Lieutenant GRAY, of the navy, in

command of a party of sailors and marines sent out from San Diego by Commodore STOCKTON, joined us. We proceeded at ten A. M., the enemy no longer showing himself, and on the 12th, (yesterday,) we reached this place; and I have now to offer my thanks to Commodore STOCKTON and all of his gallant command for the very many kind attentions we have received and continue to receive from them.

Very respectfully, your obedient servant,

S. W. KEARNEY,
Brigadier General, U. S. A."

Brigadier General R. JONES, Adjutant General, U. S. A.

There is the story of the battle of "San Pasqual," California. It is told without flourish or polish of any kind, a plain, straightforward statement of facts, without a shadow of a hint that a reward in the shape of promotion or brevet, was expected. It was a cavalry fight, commanded by a cavalryman. A portion of these same cavalymen, under the same leader, is again to be found fighting on foot, as infantrymen, at the crossing of the "San Gabriel," on the 8th and 9th of January, 1847, near Los Angeles, California, and was, as before, victorious, and occupied that town.

After the departure of General KEARNEY from New Mexico, and the arrival of Colonel PRICE with his Second Missouri cavalry regiment, Colonel DONIPHAN, with the First Missouri Cavalry, proceeded to put into execution the orders left by General KEARNEY, which were first, to look after the Navajo Indians, and then to join General WOOL in Chihuahua, Mexico. Colonel DONIPHAN entered the Navajo country at several points. One column of two hundred men, under Major GILPIN, left the Rio Grande, a considerable distance above Albuquerque, traveling west and striking the valley of the San Juan river, etc. The other column left the Rio Grande at Albuquerque, but afterwards divided into three columns, so that nearly every portion of the country was visited by the different columns, collecting about three-fourths of the tribe at or about the present site of Fort Wingate, New Mexico. It was a bitterly cold winter, and as these troops left the Rio Grande the 2d of November, 1846, and did not again reach the river until the 12th of December, at Socorro, the men and officers suffered much, the ground being covered with snow the entire time; and those of us who have had experience in that country know it is a fearful place in winter.

Colonel DONIPHAN says: "A permanent treaty was made" with the Indians. From Socorro the regiment marched to Valverde, where DONIPHAN found a large caravan of American merchants awaiting his protection to go further south. Valverde, just above old Fort Craig, became better known during the war of the Rebellion than it

had ever been before, being the place where General CANBY first fought the Texans. DONIPHAN spent several days at Valverde in getting his command into proper shape to march for Chihuahua, and as he supposed, to find and report to General WOOL at that place. The advance of three hundred men of his command, under Major GILPIN, marched on the 14th of December for Doña Aña, there to await the arrival of the remainder of the command. On the 16th two hundred men marched under Lieutenant-Colonel JACKSON; and, on the 18th, the remainder, under Colonel DONIPHAN in person. To this last party were added ninety men of the Second Missouri, under Lieutenant-Colonel MITCHELL of that regiment. The entire party, consisting of eight hundred and fifty-six mounted men, crossed the "Jornada del Muerto," being a march, according to Colonel DONIPHAN, "across a plain of ninety miles, destitute of wood and water." Every United States soldier, especially every cavalryman, who served in New Mexico after the Mexican War and up to the War of the Rebeilion, knew of the "Jornado del Muerto;" and some of them to their cost. Before leaving Valverde, DONIPHAN received information that a force of Mexicans with artillery had marched from Chihuahua to prevent if possible, the capture of El Paso; and, upon this information, he sent an order to Santa Fé for Major CLARK to join him without delay, with a battery of a hundred men, and four six-pound and two twelve-pound howitzers. This whole force was concentrated at Doña Aña, some sixty miles above El Paso. On the 23d of December the march for El Paso was resumed, and on the 25th, about three o'clock P. M., the advance of five hundred men went into camp. While getting wood and water, the Mexicans were reported as being very near, and rapidly approaching. In his official report, Colonel DONIPHAN says:—

"The rear, under Lieutenant-Colonel JACKSON, was several miles distant; the rally was immediately sounded, and our forces formed in open order on foot as skirmishers. * * * The enemy halted at a half mile and formed in line of battle. * * * Before we had fully formed, they sent a lieutenant near our lines with a black flag, with a demand that the commander of our forces should go to their lines and confer with their commander; declaring, at the same time, that unless it was complied with, they 'would charge and take him, and neither ask nor give quarter.' The reply was more abrupt than decorous, to 'charge and be d—d.' Soon after the return of the lieutenant with the black flag, the Mexicans commenced their charge and began firing at the distance of four hundred yards. Our men were ordered to reserve their fire. 'Three rounds were fired by the whole Mexican line, and also from a two-pound howitzer, before they had advanced within rifle shot.' Our men were then ordered to fire, which was done by the whole line, and

which checked the Mexicans' advance and threw them into great disorder. Captain RIED had succeeded in mounting twenty men, and was ordered to charge a portion of the Mexican cavalry, which he did with great gallantry, contending with three or four times his number. The fight continued for about twenty minutes after this, when the Mexicans fled to the mountains. The Mexican howitzer had been charged and taken by one company on foot. The Mexican force numbered 1,220, ours about 500. The force in rear under Lieutenant-Colonel JACKSON, did not arrive until after the battle was over. Thus ended the battle of Brazito."

The result of this fight would rather seem to indicate that cavalry can fight on foot as well as on horse-back.

The command entered El Paso, or rather Paso del Norte, on the 27th of December, without further opposition, and remained there until the 5th day of February, 1847, waiting for the arrival from Santa Fé of the artillery and baggage. At the conclusion of his report, Colonel DONIPHAN speaks as follows: "Captain THOMPSON of the First Dragoons acted as my aid and adviser, and was of the most essential service in forming the line, and during the engagement." On reaching El Paso, it was learned that General WOOL had not moved on Chihuahua.

After everything was in order, this column took up the march for Chihuahua on the 8th of February, 1847; and was accompanied by over three hundred wagons belonging to merchants bound to Chihuahua. Nothing of importance occurred until the 25th, when information was received of a Mexican force, of some 1500 men twenty-five miles in advance, but on approach of the column the next day, the Mexicans retreated in the direction of Chihuahua.

On the 27th, it was learned that the Mexicans, in large force, were thoroughly fortified in the pass of the Sacramento, about fifteen miles from the City of Chihuahua. On nearing the vicinity of the pass on the 28th, a reconnaissance was made, and it was found that the Mexican position was very strong indeed. Colonel DONIPHAN says:

"* * * We ascertained that the enemy had one battery of four guns, two nine-pounders and two six-pounders, on the point of the mountain on our right at a good elevation to sweep the plain, and at the point where the mountains extended farthest into the plain. On our left they had another battery on an elevation commanding the road, and three entrenchments with six-pounders; and, on the brow of the crescent, near the center, another of two six-pounders, two four-pounders and six culverins, or rampart pieces, mounted on carriages; and on the right and left, they had twenty-seven redoubts thrown up, extending at short intervals across the whole ground. In these their infantry were placed, and were entirely protected. * * *"

Now it strikes me this is a pretty big job "cut out" for a regiment of cavalry, and a battery of artillery, numbering altogether only 924 men. Just reflect one moment. Here we find a gorge in the mountain, naturally very strong, and thoroughly fortified on both flanks with twenty-seven redoubts for infantry, extending from one mountain to the other, entirely blocking up the gorge, with a force of artillery, cavalry and infantry, out-numbering the attacking party more than three to one. In addition to this, Colonel DONIPHAN had to give protection to a train of wagons numbering over three hundred. The Mexicans had seventeen pieces of artillery, and numbered in all 3,900 men.

In the absence of a sketch of the battle field, or without quoting too largely from Colonel DONIPHAN's report, it is impossible to give a correct idea of the position of the two contending forces in this battle, but it seems sufficient to state that, when our troops arrived within a mile of the Mexican position, a rapid movement to the right was made, and higher and more favorable ground was reached; and, after approaching to within twelve hundred yards of the Mexicans, the battle was opened by our artillery. Just prior to our guns opening fire, the Mexicans moved forward with 1,000 cavalry and four pieces of artillery in front of their redoubts, with the apparent purpose of preventing Colonel DONIPHAN from taking so favorable a position. Their guns opened in reply to ours. The Mexicans, after losing fifteen men and having one of their guns dismounted, moved back in some little confusion behind their redoubts. We had two or three men wounded in this brief artillery duel. Our men resumed the march, still diverging to the right to avoid the Mexican battery on our left.

At this point, Colonel DONIPHAN says:

"After marching as far as we safely could, without coming in range of their heavy battery on our right, Captain WEIGHTMAN, of the artillery, was ordered to charge with the two twelve-pound howitzers, to be supported by the cavalry, under Captains REID, PARSONS and HUDSONS. The howitzers charged at speed and were gallantly sustained by Captain REID. * * * Captain PARSONS at the same moment came to me and asked permission for his company to charge the redoubt immediately to the left of Captain WEIGHTMAN, which he did very gallantly. The remainder of the two battalions of the First Regiment were dismounted during the cavalry charge, and following rapidly on foot, and Major CLARK advancing as fast as practicable with the remainder of our battery, we charged the redoubts from right to left with a brisk and deadly fire of riflemen, while Major CLARK opened a rapid and well-directed fire on a column of cavalry attempting to pass our left so as to attack the wagons and our rear. The fire was so well directed as to force them to fall back, and our

riflemen, with the cavalry and howitzers, cleared the redoubts after an obstinate resistance. Our forces advanced to the very brink of the redoubts and attacked them with their sabers. * * * Captain THOMPSON, of the First Dragoons, acted as my aid and adviser on the field during the whole engagement, and was of the most essential service to me; also Lieutenant WOOSTER, of the U. S. Army, who acted very coolly and gallantly."

Colonel DONIPHAN adds the following: " * * * Much has been said, and justly said, of the gallantry of our artillery unlimbering within two hundred and fifty yards at Palo Alto; but how much more daring was the charge of Captain WEIGHTMAN, when he unlimbered within fifty yards of the enemy. * * *"

Major GILPIN, of the First Missouri Volunteers, makes a very interesting report of what he saw and did on this occasion, giving instances of cavalry mounted charging redoubts, dismounting and fighting on foot, remounting and charging again. His report is too long to be given here, but I think it best to insert the report of Lieutenant-Colonel MITCHELL, of the Second Missouri Volunteers. Colonel MITCHELL, with one hundred men, had been sent by Colonel PRICE (during DONIPHAN's absence in the Navajo country) to try to communicate with WOOL, who was supposed to be by that time in Chihuahua. He (MITCHELL) seems to have attached himself, with his men, to DONIPHAN's command at Valverde, and to have remained with it until the occupation of Chihuahua, on the 1st of March. The following is his report:

"CHIHUAHUA, March 5, 1847.

"SIR:—In compliance with your request, I submit the following report 'in relation to the battle of Sacramento:'

"Immediately after gaining the table-land on the enemy's left, I took command of the right wing of the army, in obedience to your orders, and at the same time gave the necessary instructions to the traders and teamsters in our rear, so as to form a field-work with the wagons, to fall back upon in the event of being too hardly pressed by overwhelming numbers. After the artillery firing (on both sides) ceased for a few moments, I ordered the right wing, consisting of about four hundred and fifty mounted riflemen, to advance in a gallop towards the enemy's entrenchments on their left.

"During this movement a battery of five pieces of artillery on the point of a hill, 600 yards to our right, opened an enfilade fire on the right of our column, which did no execution.

"By a rapid advance we reached a deep ravine about 150 paces in the front of the enemy's field-works; here I ordered the troops to dismount and charge as skirmishers. The Mexican troops maintained their positions with much gallantry until we advanced within twenty-five or thirty paces of their entrenchments; at this distance the fire of our men was unerring, and any Mexican who raised his

head above the breastworks fell. They soon after broke and fled in the utmost confusion and in every direction towards the surrounding mountains. I immediately ordered the men to remount and charge the battery on our right. This was done in gallant style, we being supported by two field howitzers, under command of Captain WEIGHTMAN of Major CLARK's battalion. When we reached the top of the hill we found that the Mexicans had fled, leaving the whole of their cannon, ammunition, wagons, etc. I saw them retreating in every direction *on foot*; as cavalry we could have followed and cut off great numbers, but the victory was complete, and I wished to spare the useless effusion of blood.

"In justice to the officers and men under my immediate command, I have only to say that they did their duty as citizen-soldiers, and their conduct would have reflected credit upon the best troops in the world.

"The morning after the battle, I entered the City of Chihuahua, at the head of two companies of mounted men, and two field or mountain howitzers from Major CLARK's battalion. In obedience to your orders, I examined all the public buildings and public property; this will form the subject of a separate report.

"Very respectfully, your obedient servant,

D. D. MITCHELL,

Lieutenant-Colonel, Second Regiment, etc."

Colonel A. W. DONIPHAN, Commanding.

The story of this battle has been so well told by the extracts from the official reports, that comment is unnecessary.

After the capture of Chihuahua, affairs settling down quietly, Colonel DONIPHAN was uncertain what further course he should pursue. He had been ordered to report to General WOOL at Chihuahua, but instead of finding him there, a rumor reached him that he (WOOL) was several hundred miles away at Saltillo, surrounded by a Mexican army. It was a question in Colonel DONIPHAN's mind, whether to return to Santa Fé, in case of disaster to General WOOL, or to march for San Antonio, Texas. However, he determined to join Generals WOOL and TAYLOR, and finally did so on the 26th of May, 1847.

Colonel DONIPHAN soon after arriving at Monterey received orders to march to Brazos, Texas, and then to take ship to New Orleans for muster-out and pay; and taking, by permission, the guns captured at Sacramento to Missouri. The horses of the regiment, with a small escort, were marched overland to Missouri. It will be interesting and instructive to take a good map and trace out the successful wanderings of this cavalry regiment. It will demonstrate what good horsemen, good shots, and determined men can do when properly led.

There has been so much time and space occupied by what has already been said, that only a *glance* can be given at other very interesting events connected with the cavalry in the Mexican War.

After the departure of KEARNEY and DONIPHAN from New Mexico, Colonel PRICE was left in command and in charge of affairs generally in that distant Territory. His command consisted of his own regiment, three companies of the First Dragoons and some artillery. CHARLES BENT had been appointed Governor of the Territory, and other officers necessary to a civil government were also appointed, and every thing, to all appearances, seemed to be working to the satisfaction of a majority of the people in the Territory. However, in December, 1846, a few dissatisfied Mexicans began to stir up a feeling of hostility to the United States. After a few arrests were made, and the principal men in the affair had escaped to Mexico, it was supposed the attempt to make trouble had been suppressed. But this was not the fact, as on the 19th of January, 1847, Governor BENT and some others were seized at Taos, by Mexicans and Pueblo Indians, and were put to death. Some of those who were murdered were Mexicans, who had accepted office under the United States. The news of the trouble reached Colonel PRICE at Santa Fé, on the 20th of January; and it was reported that the disaffected were gathering rapidly and were threatening to march on Santa Fé. Colonel PRICE gathered his command about him without a moment's delay and made every preparation to march in the direction of Taos. Captain BURGWIN, First Dragoons, was ordered up from Albuquerque with his own and another company of his regiment, leaving one company in Santa Fé, and joining Colonel PRICE, (who was already en route North), with his own. Colonel PRICE's entire command, with the exception of Captain ST. VRAINE's company, Santa Fé volunteers, was on foot; and the entire force, including a part of PRICE's own regiment, a battalion of infantry, four mountain howitzers under Lieutenant A. B. DYER, of the Ordnance, amounted to only 353, rank and file.

The enemy was first found near the town of Cañada, on the 24th of January, and were very strongly posted in some houses and on the surrounding heights. The fight at once began, and finally terminated, by a charge on all points occupied by the enemy, by Colonel PRICE's whole command, which resulted successfully, with a loss to the enemy of thirty-six killed; our loss was two killed and six wounded. The enemy numbered 1500 men. Captain BURGWIN with his own company and a company of the Second Missouri, joined Colonel PRICE at Luceros on the Rio Grande, on the 28th; and about this time Lieutenant WILSON, First Dragoons, also joined Colonel PRICE, with a six-pounder, the whole force now amounting to 479 rank and file. On the 29th, Captain BURGWIN, with his own and two other companies, number-

ing in all 180 men, was detached for the purpose of attacking a party of the enemy, reported to be posted in a cañon or gorge of the mountains, near "Embudo." He found on reaching the point, that the party was strongly posted, and numbered six or seven hundred men. However he attacked at once (on foot), and succeeded in driving them from the pass, after having been reinforced by one company; he then marched through the pass, and took possession of "Embudo." On the 30th, Captain BURGWIN marched to "Trampas," where he was directed to await the arrival of the main body. On the 1st of February, the whole command reached the summit of Taos Mountain, "which was covered with snow to the depth of two feet * * * and the march of the 1st and 2d was through deep snow, and many of the men were frost-bitten."

So says Colonel PRICE in his official report. On the 3d, the command marched through Taos, and learning that the enemy was fortified at "Pueblo de Taos," Colonel PRICE marched for that place. This town (an Indian town) was very strong, "being surrounded by adobe walls and strong pickets," and pierced for rifles, as were the buildings in the enclosure, and in this enclosure was a large, irregular building, (perhaps the church) to the height of seven or eight stories. At two o'clock P. M., Lieutenant DYER opened fire at a distance of two hundred and fifty yards, with his howitzers and the six-pounder, and the fire was kept up for about two hours and a half, but on account of the severe cold, and the non-arrival of the ammunition wagon, the troops returned to Taos for the night. The next morning (the 4th) Colonel PRICE again marched for the Indian Pueblo. He posted Captain BURGWIN with the dragoons about two hundred and sixty yards from the western flank of the church, and Captains ST. VRAINE and SLACK, with the mounted men on the side of the town next to the mountains, to prevent escape in that direction, or towards Taos. The remainder of the troops he stationed about three hundred yards from the northern wall, and with this party, Lieutenant DYER with the six-pounder and two howitzers, was posted. Two howitzers under a lieutenant, were with Captain BURGWIN.

The following is an extract from Colonel PRICE's report of this battle:

"All these arrangements having been made, the batteries opened upon the town at 9 o'clock A. M. At 11 o'clock, finding it impossible to breach the walls of the church, with the six-pounder and howitzers, I determined to storm the building. At a signal, Captain BURGWIN, at the head of his own company and that of Captain McMILLIN, charged the western flank of the church, while Captain ANGNEY's infantry battalion, and Captain BARBER and Lieutenant BOON, Second

Regiment Missouri Mounted Volunteers, charged the southern wall. As soon as the troops above mentioned were established under the western wall of the church, axes were used in the attempt to breach it, and a temporary ladder having been made, the roof was fired. About this time Captain BURGWIN, at the head of a small party, left the cover afforded by the flank of the church, and penetrating into a corral in front of that building, endeavored to force the door. In this exposed situation, Captain BURGWIN received a severe wound, which deprived me of his valuable services, and of which he died on the 7th instant. Lieutenants McILVAINE, First U. S. Dragoons, ROYAL and LACKLAND, Second Regiment Mounted Volunteers, accompanied Captain BURGWIN into the corral; but the attempt on the church door proved fruitless, and they were compelled to retire behind the wall. In the meantime small holes, had been cut into the western wall and shells were thrown by hand, doing good execution. The six-pounder was now brought around by Lieutenant WILSON who, at the distance of two hundred yards, poured a heavy fire of grape into the town. The enemy during all this time kept up a destructive fire upon our troops. About half-past 3 o'clock the six-pounder was run up to within sixty yards of the church, and after ten rounds, one of the holes which had been cut with the axes was widened into a practicable breach. The gun was now run up to within ten yards of the wall, a shell was thrown in and three rounds of grape were poured into the breach. The storming party, among whom were Lieutenant DYER, of the Ordnance, and Lieutenants WILSON and TAYLOR, First Dragoons, entered and took possession of the church without opposition. The interior was filled with dense smoke, but for which our storming party would have suffered great loss. A few of the enemy were seen in the gallery where an open door admitted the air, but retired without firing a gun. The troops left to support the battery on the north were now ordered to charge on that side. The enemy abandoned the western part of the town, many took refuge in the large house on the east, while others endeavored to escape towards the mountains. These latter were pursued by the mounted men under Captains SLACK and ST. VRAINE, who killed fifty-one of them, only two or three men escaping. It was now night, and our troops were quietly quartered, in the houses which the enemy had abandoned. On the next morning the enemy sued for peace, and thinking the severe loss they had sustained would prove a salutary lesson, I granted their supplication. * * * The number of the enemy at the battle of "Pueblo de Taos" was between six and seven hundred. Of these about one hundred and fifty were killed; wounded not known. Our own loss was seven killed and forty five wounded. Many of the wounded have since died. * * *

Some of the leaders of this uprising were killed in battle, one shot while in the guard house, and one hanged. And thus ended the rebellion in New Mexico. Trouble had occurred in other parts of the Territory, but what has just been told is sufficient for the purpose. Of Captain BURGWIN's company including himself (killed) there were

twenty-four killed and wounded. The remark will probably be made by some reader, "Well, there is not much cavalry in all that." That is so, but let it be remembered that the principal part of the troops comprising this command belonged to mounted regiments, which had become dismounted by the incidents of service. When this short but decisive campaign began, Captain ST. VRAINE's Santa Fé volunteer company was the only one mounted, but during the progress of the campaign, a sufficient number of horses was received to remount Captain SLACK's company.

The point to be made for the cavalry during this campaign is, that a good cavalryman can fight on foot as well as on horse-back; and the fact of his belonging to a mounted regiment does not impair his efficiency to serve on foot when it becomes necessary, as was proven over and over again during the war with Mexico. It was also found that the cavalryman made a very fair artillery soldier; at least, he was capable of taking a *shell* with a *lighted* fuse in *his hands*, as did also the artilleryman, and throwing it through the holes which had been cut in the western wall of the church. From the fact that a good cavalryman makes a good infantry or artillery soldier, it does not follow that "the rule will work both ways," for, unless a man is a good horseman he will make a very poor cavalry soldier, no matter how good a soldier he may be on foot. Put a poor rider on horse-back, fasten to him a carbine, saber and pistol, and he simply becomes disabled; the horse is at once "master of the situation," and the man entirely useless, even though he be a veteran on foot.

Any one who will take the trouble to look over the old records, official reports, etc., of the Mexican War, or who will look into the services of the cavalry during the War of the Rebellion, and the Indian wars, scouts, etc., before and after the Rebellion, cannot help being impressed with a few very important matters, which should interest every one who takes any interest in the cavalry arm of the service. In the first place, no man should ever be assigned to a cavalry regiment who is not a good rider, and to this end very important changes will at once recommend themselves to every thorough cavalry officer; but above all, let rendezvous be established in sections of the country where good riders are most likely to be found, and under the direction of experienced cavalry officers.

It will generally be observed that every commanding general who thoroughly understands the uses of cavalry, will also probably have an efficient body of that arm of the service. If it is not there, it is not the fault of the general. And then if you have good horsemen (a good rider and a good shot seem to go together), you want a leader

(as well as subordinate officers of the same mettle), with judgment and "snap," and one who keeps his command, as it were, on the "half-cock." Such are the impressions received from some reading and reflection, and a little experience, all of which are respectfully submitted.

W. B. LANE,

Brevet Lieutenant-Colonel, U. S. Army, Retired.

HYGEIA HOTEL,
OLD POINT, VIRGINIA.

THE LATEST REGULATIONS FOR THE GOVERNMENT OF
THE GERMAN CAVALRY IN SCREENING AND RECON-
NOITERING DUTIES, BY A GERMAN STAFF OFFICER.

IN TWO PARTS—PART ONE.

[Prepared expressly for the JOURNAL OF THE U. S. CAVALRY ASSOCIATION.]

GENERAL VON LÖE, commanding the Eighth Army Corps, one of the ablest commanders and cavalry generals in the German army, has undertaken the praiseworthy task of combining in a clear and harmonious manner the principles, maxims and usages which are observed in active service in the German cavalry, in a work on the active service of that arm, which treats these points in a most exhaustive manner, and has met with a most welcome reception in the German army.

A new edition of this work has just appeared. It takes into consideration the numerous modifications of the regulations and maxims for active service in the cavalry, which have been introduced since the appearance of the first edition. It treats the present condition of screening and reconnoitering duty in the German army in as complete and perfect a manner, with regard to both principles and methods, as has ever yet been attained by any work which treats of these branches of the German cavalry service.

The work is also especially worthy of notice from the fact that it not only reproduces the positive regulations and their usual application in the German army, but considers their application with reference to examples drawn from military history and the tactics pursued in other armies.

As its merits are thus so great it may appear a no less praiseworthy and welcome task to examine, from the standpoint of a classical work, the present condition of the German cavalry's screening and reconnoitering service.

No special proof is needed that the chief tasks in the screening and reconnoitering service fall to the cavalry in the German army

as elsewhere, during the march as well as the halt, in bivouacs or cantonments and, during the engagement, on the flanks and rear of the troops in action.

There are no special instructions in the German army referring to protective service suitable to all circumstances and different kinds of country; but, in every single instance, different arrangements are made according to circumstances, organization, division of command, and the state of the divisions for protective service.

With a view to economize one's forces, these divisions are made as weak as possible, yet strong enough for their purpose.

Good reconnoitering is justly considered to be an essential factor in protective service, and as a German cavalry general expressed it, it ought to discover the enemy's movements at their very beginning, and to report them in time for the screening force to take the necessary measures.

The task of reconnoitering falls almost exclusively to the cavalry, and the whole of the cavalry at hand is, as a rule, advanced beyond the infantry divisions which require to be protected.

Of the greatest importance for reconnoitering are the *officers' patrols*; these find, in almost every kind of country, an opportunity of approaching the enemy unnoticed and of reconnoitering his strength and movements.

With respect to the outpost duty on the march, the following rules are especially observed at present in the German army:

The length of marching columns is very considerable. A battalion without its heavy baggage has a length of 400 meters; a cavalry regiment three men abreast, 650 meters; a field battery with its first train, 270 meters; a battery of horse artillery, 290 meters. The troops of a division, therefore, not being divided into rear guard and main body, and without most of the baggage, form a marching column eleven kilometers long; but with baggage, ammunition columns and trains, twenty kilometers long, without being divided into advanced guard and main body.

To form a regiment of infantry for action takes one-quarter of an hour, to form a division, two hours and a half, during which time the deploying troops require protection. When out of reach of the enemy, attention is chiefly paid to facility of movement and comfort; but in the neighborhood of the enemy, consequently on the march, in war, the engagement is chiefly taken into consideration.

The arrangements for marches in war require the formation of independent parts, composed of troops of all arms, which precede the

main body as an advanced guard, or march on its flanks, being then flank detachments, or follow it as a rear guard.

The task of these specially formed bodies of troops, consists in reconnoitering the country, in removing obstacles, in discovering the enemy, his strength, position and intentions in good time, and reporting on these at once to the Commander-in-Chief. They must further resist a hostile attack sufficiently long to enable their own main body to deploy and to prepare for action, or to execute such movements as the Commander-in-Chief wishes.

War marches may be divided according to their purpose, into three different classes: The advance, the pursuit after a victory and the retreat after a defeat.

Of the advanced guards and of the rear guards which are formed of the three different arms of the service for the safety of the march of greater bodies of troops, the cavalry is the most important factor, being best fitted for reconnoitering the enemy and the country round about. The task of resisting, in order to protect the deployment of the marching columns of the main body falls, however, to the lot of the infantry and artillery.

The bulk of the cavalry of the advanced guard marches, as a rule, a little in advance of the latter, for the purpose of reconnoitering more quickly during the advance; it may either be under the immediate command of the leader of the whole expedition, or be attached to the advanced guard, or to the rear guard, and placed under the command of their respective leaders. The march of the troops proceeds with ease and uniformity, the cavalry being thus advanced, and the delay produced by the halts of the cavalry of the advanced guard (which are frequently necessary) do not affect the other troops on their march.

The task of the advanced guard is, especially, to procure information about the enemy, to veil the march of their own men, to open the way for the main body, and to delay the enemy as long as may be necessary for their own operations.

The advanced guard is not to stop before every small body of hostile troops, but, as it is followed by its own main body, it is to boldly advance against them, and repulse them. The chief aim of the advanced guard must be to protect the main body from an unexpected serious attack.

The strength and the composition of the advanced guard are adapted to the state of the ground and the strength of the marching body of troops or the foremost part of the army.

The advanced guard contains from one-sixth to one-third of the

infantry. If the country is open and it is not well in touch with the enemy, the cavalry of the advanced guard is followed by only a weak advanced guard of infantry. If, however, the country is difficult and covered, and the enemy is near, the advanced guard is strengthened in order to overcome resistance.

The distance of the advanced guard from the main body depends on circumstances, country and the strength of the enemy. The advanced guard consists of a main body, a vanguard, and of the cavalry of the advanced guard. The main body is composed of the bulk of the infantry and the artillery. The vanguard consists of one-fourth to one-third of the infantry of the advanced guard, the necessary cavalry and pioneers.

The vanguard dispatches a company or some squads of infantry in advance as van, from 300 to 400 meters, or sends in advance one officer and a squad of infantry, in front of which is still a cavalry patrol, or the cavalry of the vanguard with its advanced patrol, (*spitze*). The advanced guard thus arranged is, as a rule, and as already mentioned, preceded by the bulk of the cavalry as "independent cavalry," or as the cavalry of the advanced guard. Its arrangement is left to its commander, as well as the necessary measures for reconnoitering and protecting the following troops. Generally, however, the cavalry of the advanced guard is also divided into a main body, a vanguard and a leading squad. The squad consists of an officer and from four to six horsemen.

Beyond the squad, independent officer's patrols are sent in advance as a further safeguard for the march, and for scouting purposes. As to their command and tactics, the following maxims are adopted now-a-days in the German army: Their task is to reconnoiter the condition of the enemy, and a part of the country, or some particular place. If the march is directed toward the enemy, they have to reconnoiter the hostile advance, and the hostile marching-columns; or if the enemy has posted outposts, or has taken up a position of defense, they have to ascertain whether this position is taken up only for the time being, or for an earnest defense; lastly, they have to find out the most suitable points of attack.

A distinction is made between *forced reconnoiterings* and *reconnoiterings of observation*. The former seek an engagement from the beginning, in order to oblige the enemy to deploy his forces. They are generally executed by stronger detachments of all arms, and are meant to serve as a prelude to a general attack.

The *reconnoiterings of observation* are executed by *officers' patrols* and small detachments which have to avoid an encounter with the

enemy, as much as possible. They are to observe, but not fight, and are only to resort to an attack when they cannot perform their task secretly.

For these reconnoiterings cavalry officers' patrols of from five to six horsemen up to platoon strength are employed, or cavalry detachments not exceeding a few squadrons. To the command of those patrols clever, bold and capable officers are principally appointed, because the most important consequences often depend on the result of their management of them. The leader of an officer's patrol should be the eye and ear of the Commander-in-Chief, as long as the troops are on the march, but in battle and during the fight he must be the supporting organ of the tactician, viz; the Commander-in-Chief. In the former case, the great bodies of troops are led on according to his reports; in the latter, the attack will be made upon the weak point of the enemy which he has ascertained.

The strength of officers' patrols depends on the nature of their task and the distance to which they are sent in advance. Generally, if the enemy is very near, one officer, with five or six horsemen is sufficient, but if the distance amounts to a day's march, one officer with a squad will suffice. For the execution of orders which go beyond this, and which require several days, several squadrons are employed. It is regarded as a maxim that a troop of horsemen which is several miles in advance of the outposts for several days and dogs the movements of the enemy for quite a long time, overcomes all obstacles, has nothing to fear, and may be of the greatest importance.

The general conduct and duty of these officers' patrols is as follows: As soon as they pass beyond the line of outposts, they take measures for their safety similar to those of the advance guard. The sphere of screening duty is, however, extended as little as possible, because these patrols must rely upon themselves, and require only little time to prepare for action. They detach as little as possible, by which their power of movement is augmented.

These patrols seek their safety, especially in the choice of a concealed road, in the time when they march, and in the news which they glean about the enemy. They choose, if possible, covered paths through woods and covered country, avoid high-roads and inhabited places, start before dawn, choose hiding places during the day as soon as traffic becomes too lively, and employ the time in collecting reliable information by intercepting travelers or hostile patrols.

There is considerable difference between leading a troop of the advanced guard and leading an officer's patrol. The advanced guard and its van marches on the high-road, because the main body must follow

there. It expands its sphere of safety as much as possible to protect the main body. An officer's patrol, on the contrary, marches concealed as much as possible and in close order up to the point where its proper reconnoitering commences. From there this patrol dispatches smaller patrols to observe what its task requires. In case of being obliged to feed the horses, or to spend the night on its way, this is done at some place of concealment, lonely houses, etc., under the protection of a few well-placed outposts, and, while avoiding all noise, the patrol avoids hostile detachments and every engagement, however good the chances may be, but tries to intercept small hostile patrols. The special way of acting in reconnoitering depends on the commander's orders.

If only a certain small part of the country is to be reconnoitered, the officer's patrol marches till it is near to it, concealed as much as possible, remains there in a hidden position, and the leader takes with him only a few men, whom he sends forth a short distance as patrols or vedettes, in order to be guarded against surprise; after which he tries to execute his orders as quickly as possible. Weak, hostile troops, which hinder his reconnoitering, he repulses; has them, however, pursued only by patrols, and executes his task under the latter's protection.

The officers' patrols seek, when actually reconnoitering the enemy, in a similar manner, first to get in touch with him, or to get a glimpse of his march or position; they further try to observe the detachments with which they are in touch, seeking at the same time new points of contact. It is also important to perceive where the enemy is *not* stationed, and to report the fact.

To reconnoiter a hostile position, especially previous to attacks or battles, several officers' patrols are always dispatched from different points at the same time, in order to observe the position of the enemy, with his reserves, the extent of his troops, the condition of the ground in front of him, the chief points of attack, and the strength and distribution of his troops, at least of his outposts. Previous to defensive battles and engagements, officers' patrols are likewise sent forward to reconnoiter the enemy and the ground in front. During the combat they direct their attention to all changes in the hostile army, and report on them, especially on divisions and movements of the enemy which are hidden by hills, woods, villages, etc., in good time for the commander of their own troops to make counter-arrangements.

Officers' patrols are also sent towards the hostile lines of outposts to ascertain whether the enemy behind them has marched

away or not. They advance as secretly and unnoticed as possible, and only exceptionally engage in a fight. Sometimes, however, if circumstances demand it, a bold, headlong advance also leads to the desired result. Officers' patrols, generally weak in numbers, try to attain the desired result by surprise, not by an engagement. They are, therefore, generally sent out at night, and, as soon as they have approached the hostile line of outposts, choose a hiding place from whence they observe at daybreak the strength and the position of the hostile outpost (often from its being relieved) and throw themselves as soon as day dawns, upon the hostile outpost, which they repulse and pursue with a few horsemen, whilst the leader of the officer's patrol, with a few able corporals, tries to gain some points of survey to reconnoiter from them. As soon as this is done they quickly retreat. If the task cannot be executed without fighting, a short push forward is made.

But let us return to the tactics of the advanced guard. The commander of the advanced guard gives his particular attention to measures of safety for the march; to the acquisition of news about the enemy; to the reconnoitering of the country round about; to turning the information gained to account; and last, but not least, to the proper steps which must be taken when falling in with the enemy. The precautionary measures taken by the advanced guard consist in a chain of patrols in its front and on its flanks. The front of this chain has about the breadth of the main body when it is deployed; its flanks must be able to protect the space between the main body and the advanced guard. The chain of patrols reconnoiters the ground round about, preserving distances from and connection with one another without losing time, and reports on everything which is important or suspicious. The march of the main body must not be hindered by this operation.

With regard to a quick acquisition of reliable news about the enemy, the method formerly in use of simply sending messages by patrols and scouts is no longer considered sufficient. The commander of the advanced guard is to learn from those messages about the strength, kind of arms, and marching direction of the enemy, as well as to conjecture from his own observations, the intentions of the enemy, to judge distances, time and situation; and he should be able to make satisfactory reports on the nature of the ground and its suitability for an engagement.

If the advanced guard encounters the enemy, it first ascertains what force is opposed to it, whether the opposing troops are the vanguard or flank detachments of a strong or a weak corps, whether they

are in an offensive or defensive position, on what roads they are marching, and at what distance. According to these circumstances the leader forms his plans. The best means of quickly obtaining information about the enemy is to capture some of the enemy's soldiers or patrols.

The maxims above mentioned referring to the advanced guard's task, formation and command, hold good for all smaller or larger screening parties, whether for the officer in command of the leading files of a column or for one commanding a mixed brigade of the advanced guard.

The cavalry officer at the head of the advanced guard and the commander of the advanced guard keep the general situation continually in mind, or judge the condition of the country, the enemy's relation to the column following it, the proper moment for deployment, the position to be occupied, and the attacks to be made. They make the necessary arrangements for provisioning their commands, put themselves in communication with the inhabitants, examine authorities and officials of villages or towns, send forth, if possible, scouts in different directions, seize the mails and examine the letters.

In the Franco-German War of 1870-71, with mixed advanced guards, the cavalry was placed at the head of the advanced guard under all circumstances and on every kind of ground until necessity required the advance of the infantry. With from three to four squadrons at the head, one squadron was pushed forward as a vanguard, which again had in front of it a squad as van. With from only one to two squadrons at the head, the vanguard was omitted, and only the squad of the advanced guard was pushed forward as van. Therefore, on every kind of ground, with any number and formation of the advanced guard, by day and by night, a troop of cavalry marched at the head reconnoitering the country with its leading patrol, flank detachments and patrols.

If the van of the *vanguard* is composed of mixed arms, its commander is either a staff officer or a captain, but the leader of the leading patrol of the cavalry is a lieutenant. If the van of the vanguard consists only of cavalry, it is commanded by an officer whose rank is adapted to the strength of the vanguard. The commander of the leading patrol is a lieutenant. If the vanguard consists of only one squad of cavalry, its commander is at the same time the commander of the leading patrol, with which he always rides.

The leading patrols and the flank patrols, which the vanguard dispatches, reconnoiter the marching ground, get and remain in touch with the enemy. The leaders of the leading patrol and of the vanguard are responsible for the safety and comfort of the following troops, and

for the timely acquisition of reliable news, for which they take the necessary steps independently. Their task is very important, because they will always be nearest to the enemy, and their observations and reports are therefore of the greatest consequence.

The task of the van of the vanguard and of the leading patrol is to reconnoiter the road which the advanced guard takes. The safety of the flanks of its van is effected by flank patrols, that of its main body by special flank detachments of from one-half to two squads, or even by flank detachments of greater strength. These are dispatched with independent orders from the main body of the vanguard.

All the troops which protect the flanks keep in connection with the van and the main body of the vanguard.

The leading patrol's duty is especially to reconnoiter the ground on both sides of the road, to discover hostile troops or traces of the enemy early, and to report on them; to watch those hostile troops, and to report on them; and to find out roads by which obstacles to the march may be avoided. The vanguard has to support the leading patrol reconnoitering the ground on the sides of the road, removing obstacles, or finding out means of evading them, repulsing small hostile bodies, and making prisoners.

The commanders of the leading patrols and of the vanguard judge moreover of the country through which they pass, both with regard to the march and the provisioning of the troops following, as well as with regard to its use for tactical purposes; and further, take all steps necessary for reconnoitering the enemy, his strength, composition, direction of march, position and intentions. They dispatch patrols in advance, examine travelers, local authorities, post and telegraph officials, seize letters, telegrams and newspapers, especially those from the interior of the country, and examine the traces furnished by deserted camps and bivouacs, by wounded or sick soldiers, by pieces of uniforms or arms which have been found, by men, horses, carts, clouds of dust, fires, and by prisoners. Their reports are made in writing, in a short, clear, and precise form. Lastly, as soon as they meet parties of the enemy they take advantage of all circumstances which may be conducive to the purpose of the march and in accordance with their special instructions.

. An officer of the advanced guard avails himself of the following useful expedients: Good maps, which are generally furnished; if they are wanting, he must try to obtain them for himself and the higher officers, in parsonages and in post and railway offices. He must further have a watch which goes well and keeps time with that of the aide-de-camp of the advanced guard, a pocket compass, a field glass, a

signaling whistle; and a book for memoranda, with square cards and envelopes for messages. Previous to the commencement of the march, the commander of the leading patrol receives from the commander of the advanced guard, or from the leader of the vanguard, precise instruction with regard to his orders and the route he is to take. This he enters in his book for memoranda, together with the different places on the road, after having compared them with his map. If any points are not clear to him, he asks for an explanation. The commander of the vanguard receives from the commander of the advanced guard precise instructions about the same points, about any flank detachments that may be necessary, and how he is to behave in case of falling in with the enemy.

The officer of the advanced guard then examines the arms, ammunition, horse-shoes, saddles and straps, etc., of the horses of his detachment, as well as the number of reserve horse-shoes; grey horses are not allowed in the advanced guard, at all events their riders must not be employed in the leading, or in the flank patrols. Unserviceable arms, horse-shoes, or spoiled ammunition, are exchanged on report to the commander of the squadron.

The leader of the vanguard then makes the necessary divisions of his troops, orders the horsemen required for the commander of the leading patrol, for the flank patrols and the number of connecting files; gives the necessary instructions to the leaders of the flank patrols in a short, decisive and distinct manner, especially with regard to the names of places. These orders are verbally repeated by those who receive them, to show that they have understood them.

Single marching squadrons generally have as a vanguard a squad which sends forth a leading patrol and side patrols. Weaker bodies of cavalry protect themselves by a leading patrol and flank patrol only. The leader of the squad assumes command of the leading patrol and surrenders that of the other troops to the senior subaltern officer to whom he sends his orders by connecting riders.

With regard to the subdivisions of the advanced guard. First, for the leading patrol, the following rules govern: The officer of the leading patrol makes it take a trot with swords in the scabbard, and loaded carbines at half cock; if the country is difficult to survey, or if it seems otherwise necessary, the arms are shouldered by order of the commander. The latter betakes himself to a point offering a good view near the road, leaving, according to his distance from the van, from one to two men behind on the road to keep up the connection. The other men he sends, according to requirement, to other points of observation (rising ground) or to parts of the country round

about which he cannot see, or to farms, bushes, etc., which must be reconnoitered, and which lie near the road. He stops at a suitable point for making his observations, and so do the horsemen of the leading patrol.

Tracts of country which cannot be examined are passed at a trot, but from suitable points observations are made while halting or riding at a slow pace. The leading patrol advances thus by leaps and bounds, as it were, from one point of observation to another. The commander of the leading patrol is not obliged to maintain a certain distance from the vanguard. The leading patrol must be so much in advance that it can discover in time every hostile detachment, and so near to the vanguard as to keep up its connection with it, viz: about 400 to 1,200 meters. It depends on the ground, how far from the road on which the march is proceeding, the leading patrol is obliged to reconnoiter; its commander must, however, be always in a position to guide his horsemen by his whistle and by his signs. If a guide is with the leader of the leading patrol the former is watched by a horseman.

Flank patrols are dispatched to reconnoiter on parallel roads and important places of the ground, beyond the horizon of the leading patrol, and to protect the flanks of the march of the main column. If the dispatch of flank patrols and their direction are not prescribed in the orders of the officer commanding the vanguard, he takes steps to protect the flanks independently. He considers how far the reconnoitering sphere of the leading patrol will extend sideways from the line of march, and points out the way to the flank patrols accordingly, or he dispatches, from time to time, new flank patrols if the ground demands it. They generally consist of a subaltern officer and from three to five men. They act like the leading patrol, always keep up their connection with it, and report on important matters to its leader.

The vanguard's van precedes the vanguard so far, that on falling in with the enemy, the latter has time to deploy for action, generally 500 to 1,000 meters; if the advanced guard is small, so far that its main body cannot be surprised by an effective infantry fire. The leader of the vanguard's van is responsible for a right judgment and observation of the distances of his troops from the subdivisions following them and his patrols and troops. Considerations of safety, of the avoidance of unnecessary halting, and the maintenance of constant connection, determine the commander of the vanguard in judging the distances. A smaller troop keeps its distance from the greater, and

takes its time and step from it. Larger bodies of troops keep up the connection with the divisions in front.

The vanguard's van is the force for the supply of horsemen sent out for immediate observation; and, if necessary, it opposes the resistance of the enemy in close order. The place of the leader of the vanguard's van depends on the point of observation and other circumstances; but he generally rides with the vanguard, when the next senior officer takes the command of the van.

The commanders of subdivisions of the advanced guard send, as a rule, their reports in writing. They are to give precise, yet brief, information of the strength, different kinds of arms, the line of march and probable intentions of the enemy, or about the country in front.

Prisoners, persons who give information, letters or telegrams are sent to the commander of the advanced guard. The physical strength of the horses of the advanced guard cavalry is spared as much as possible. At the maneuvers in time of peace they only walk or trot.

The horsemen, especially those of the leading patrol, make themselves understood by signs, which have been learned and practiced in time of peace, in order not to betray themselves by speaking or riding about. The subaltern officers lead their divisions, if required, by whistle signals.

The most important duty of the officer of the advanced guard consists in obtaining reliable and sufficient information about the enemy. This duty falls, of course, to the reconnoitering officers' patrols in the first place, but also to the officers who command the leading patrol and the van of the advanced guard. The latter do not simply communicate to the rear their own observations, the reports of their patrols and the information they have received, without arrangement or comment; but they themselves form a correct picture of the situation from the foregoing, and report the result of their judgment in a short and concise manner to the commander of the advanced guard, as far as it is a matter of fact or of supposition, or as far as it is based on their own observation or information received.

The officer of the advanced guard bases his reports on such indications as he may perceive, on news that he has received and on his own observations on meeting with the enemy. Such indications are: Clouds of dust, the fire of bivouacs or outposts, smoke of deserted bivouacs, etc. From the nature of the clouds of dust, the kind of troops is judged; from their direction, the line of march; and from their extent, the strength of the enemy. Windy weather must be taken into consideration as well. Infantry raises thick, low dust, cavalry high and thin dust, artillery a continuous cloud of dust.

From the extent and number of the fires of bivouacs, a conclusion as to the position and the strength of the enemy is drawn. The patrols which advance under cover of darkness watch these fires. If they disappear and reappear again, troops are defiling by them. The flaring up of several fires one after the other may involve a stratagem, and be intended only to mark the withdrawal of the enemy. A considerable rise of smoke at an unusual time points to the enemy's starting, and sometimes to his quickly leaving the camp. The barking of dogs, the neighing of horses and the unusual smoking of chimneys of villages or towns indicate troops.

From the traces of troops which have marched by, a conclusion is drawn as to their line of march, strength, kind of arms, and their formation. Ground uniformly trodden down is a sign of infantry, and tracks of horse-shoes or carts point to cavalry or artillery. Narrow tracks indicate marching columns, wide tracks and trampled-down corn point to a formation for action and considerable strength. From deserted bivouac places the strength and condition of the troops are inferred, and this too, by the number of the fires and the breadth and depth of the bivouac.

Pieces of uniform and arms which have been left behind, ammunition thrown away, dead horses and fresh graves are indications of the state of the troops, especially when retreating.

From the messages received the officer of the advanced guard ascertains what part of the information is correct, examines inhabitants of the country, prisoners and deserters. The questions put to these persons, also to local authorities, clergymen, and post, railway and telegraph officials, embrace the presence, direction of march, strength, kind of troops, and measures of the enemy, the uniforms and numbers of the different troops, bivouacs and cantonments of the enemy, the outposts, place, time and regularity of patrol rounds, inquiries made by the enemy, the state of the roads in the enemy's direction, the defiles through which they pass and the possibility of turning them, the demolishing of bridges and pulling down of dykes, the blocking of streets and roads, and the erection of barricades and other obstacles. The different persons are individually examined. Contradictions frequently lead to the truth. Deserters are examined about the name and the number of their regiment, the strength of their troop, the name of the highest officers, of the generals of brigades, divisions and corps; and, in addition, whether the troops were in a bivouac or in a cantonment, or where this took place, whether outposts were posted and of what kind, whether there were many

wounded and sick, and the quality of the commissariat. The same questions are put to prisoners and deserters.

It is of the greatest importance to ascertain the numbers of the regiments and brigades, etc., etc., as well as of the names of the higher officers and generals, because such positive intelligence may be of the greatest importance for judging the whole of the enemy's operations; the "*ordre de bataille*" of the enemy, and the names of the officers in command, being usually known to the general staff. The officer of the advanced guard sends the persons who can give any information about the enemy to the commander of the advanced guard, adding to the accompanying report his own judgment about the credibility of the statements and their agreement with his own observations.

Prisoners give the most reliable information.

CROSSING OF THE BYSTRITZA RIVER BY THE FIRST DON COSSACK DIVISION,* IN CANVAS BOATS.

A. H. KOVRIGIN.

IN time of war it is often urgently necessary to cross deep, wide and unfordable rivers. The solution of such a question does not offer any difficulty for cavalry, for large sections of this branch have often swum very large rivers; but the question becomes quite complicated if the cavalry is accompanied by its artillery. In such circumstances, to transport the material parts of artillery, it will be necessary to have boats, rafts or ferries always at hand, a fact that must impede the crossing, as the means are not always at the disposition of the troops, and the assembling of materials needed for the construction involves an enforced loss of valuable time.

For the purpose of solving this question more or less satisfactorily, the First Don Cossack Division worked out several types of boats formed of lances covered with canvas. Of all such boats, the best one, judging by the tests made on the 18th of August, was the one proposed by Commander APOSTOLOF of the Regiment No. 15. This boat, with a capacity of 1,620 pounds, is formed of sixteen lances covered with canvas, and has the shape of a truncated pyramid. It was tested several times at the town Zamostyé (Government Lüblin) but as there was no suitable place the tests could not be properly made. Only while the division was in its summer encampment did the local conditions permit a suitable experiment.

For crossing, a place was chosen on the Bystritza river, about three versts northeast of the town of Lüblin. In this place the river was about thirty-five yards wide and from seven to fourteen feet in depth; the bottom is somewhat soft; the banks, in some places, are steep but not high. At the crossing place there was assembled a platoon of sixteen files from each sotnia (troop) of the First Brigade

*This Division belongs to the Fourteenth Army Corps, and is stationed at Zamastye, Government of Lüblin, Poland.

(two regiments), with one horse gun. The crossing was begun by Regiment No. 10, which first sent off a number of skirmishers, volunteers and sappers, in all, ninety-six men.

Approaching the crossing place, these men dismounted, unsaddled their horses, took off their equipments, undressed, and, with only their "schaschka" (cossack sword) in their mouths, began to enter the water in mounted order, inducing the horses to jump into the river directly from the steep bank. In view of the small width of the river, to make the horses swim across a greater distance, the landing place was fixed lower down, thus compelling the horses to cross a distance of about one hundred yards. The crossing was made in full order. The horses willingly entered the water; each man, by holding the mane of his horse, swam on the side of the current. At the same time, the saddles, guns, all the equipments and also the clothes of the Cossacks, were put into two boats, each of which contained twenty-five saddles, the same number of carbines, and the equipments and clothes of the same number of men.

The crossing began at 5:30 P. M., and in twenty minutes the river was crossed not only by the skirmishers, volunteers and sappers of Regiment No. 10, but also by the boats which transported their saddles, carbines, etc., so that the men had time to dress themselves and to send off horse-patrols for the purpose of reconnoitering the locality lying in front of them. Then followed the platoons of No. 10 Regiment, which, crossing with the same success as the front sections, were drawn up in thirty-five minutes after the beginning of the crossing. The same boats transported also the equipment of these platoons. Simultaneously with this, a little above this place, the crossing of the gun and limber was made on boats of the same construction, but covered with double tarpaulins. The gun was dismounted and the wheels of both the carriage and limber were taken off. One of the boats, into which hay was put to prevent its being torn by the wheels and to increase its surface, carried a pair of wheels and six Cossacks for the unloading of materials arriving with the following boats. This boat also carried the end of the picket rope, which was fastened to a stake driven into the opposite bank. In this way it was possible to accelerate the crossing, as the men sitting in the boat could get themselves across by pulling on the rope. However, the use of the rope was not a necessity, as the boats, with the assistance of oars (sapper shovels), have a sufficient propelling power.

The other boat carried the carriages which, with the guns, transported afterwards, were disembarked quite well; at last, the limbers were transported in the same successful way. The necessity of put-

ting hay in the bottom and on the sides of the boat was proved by the following circumstance:

The last boat, which carried the other two wheels and four Cossacks, was not supplied with hay, and in consequence of this the surface of the boat decreased to such an extent that, although it contained much less than the limit-weight, hardly were the wheels disembarked when it sank near the bank, but was taken out by two Cossacks; a proof of its lightness. The transport of the gun and the limber, together with the assembling of their parts on the opposite shore, was made in forty minutes.

Regiment No. 9 crossed the river, with two boats, in thirty minutes, in the same successful way as Regiment No. 10.

The boat itself is constructed very easily, in twenty-five minutes, requiring only a supply of tarpaulins and lances, *i. e.*, materials which can always be kept by commands and the transport of which does not cause any difficulty; the buoyancy of the boat is sufficiently great, while at the same time it is very light, as only four men are required for its handling.

The above mentioned merits of the boat proposed, were so well explained that in the First Don Cossack Division, by order of its commander, all the regiments were supplied with a number of tarpaulins sufficient for six boats per regiment, or one to each sotnia (troop).

It must be observed that the lances of which the boats are formed are exposed to so great a strain that if they were made of pine they could not sustain it. Nevertheless, as the tests showed, not one of the lances was broken during these experiments; the reason of this is that in the First Don Cossack Division, where only the front ranks are supplied with lances, the lance shafts are of beech, which is strong and at the same time very elastic.

ST. PETERSBURG, September 30, 1890.

DISCUSSION.

Lieutenant-Colonel G. B. SANFORD:

I have been exceedingly interested in Mr. KOVRIGIN's account of a method of crossing rivers without bridges or regularly constructed pontoon boats, and will state my own experience in this matter.

In 1873 I was ordered by General CANBY, commanding the Department of Columbia, to report to him with my Troop, "E," First Cavalry, at the Lava Beds in Oregon, where the Modoc War was then raging. I left Fort Lapwai, Idaho Territory, within a few hours after

the receipt of the order, with my troop of cavalry and about forty pack mules. The season was late winter, the distance to be traveled several hundred miles, all of very sparsely settled country. Several mountain ranges must be crossed and at least one large stream, on which I knew no boats could be found. This stream, however, I knew would be fordable unless a sudden thaw sent down a rapid rise from the mountains.

I will not delay the Association with an account of the various and unexpected mishaps which befell us in our terrible journey through the Blue and Powder River Mountains, in winter, nor the straits to which we were reduced from lack of rations and snow blindness among the men. Suffice it to say that we at length reached the banks of the Malheur river a very much used up command of men, horses and mules.

Camp Harney was a couple of days' march in front of us, and we *must* reach it, for recuperation. To go back would have been fatal to most of our men and about all of the stock. The snow had begun to melt during the day, so that as the column ploughed along through it over the mountain trails, the men were most of the time up to their waists in drifts—of course on foot, and dragging their horses after them. On gaining the bank of the river I found it a raging torrent, of unknown depth, full of floating ice. The only timber of any size was pine or juniper on the mountain sides. I made one experiment, in the way of a raft, of this material, and can testify conscientiously that it won't answer the purpose.

It was a serious dilemma, for we *had* to *cross*, or *starve*. I had with me a Pah-ute Indian, who spoke no English, but with whom I could carry on some slight communication by means of signs. He called my attention to a quantity of willow brush growing along the banks, and I made out that his idea was that we might utilize this to cross. This gave me a basis to start on, and in a few moments most of my troop were cutting dry willow sticks about four or five feet in length, and from one to two inches in diameter.

I took the packs off the mules and spread the canvas pack covers on the ground. They were perhaps six feet wide and twelve or fourteen feet in length. (I speak entirely from recollection and may be out in my figures.) On these pieces of canvas the sticks were laid in layers across the width. Heavier sticks were placed lengthwise along the sides to keep them in place and when the whole pile was about four feet high, the sides of the canvas were drawn over towards each other and lashed backwards and forwards with a picket rope. The sides of course did not cover the sticks, but that was remedied

by placing another canvas over the sticks before the lashing took place. This gave the sides of the boat; to make the ends nothing was necessary but to bring up the canvas from front to rear and lash it securely.

As the sticks had been purposely laid so that the longest came in the middle, I had a boat shaped something like a cigar, about eight feet long, four feet wide and, *without a load*, drawing not over six inches; a stout rope was placed around each of what might be called the bow, waist and stern, and through this a line was carried.

As the stream was entirely too swift to admit of paddling the boat over, a non-commissioned officer (Sergeant A. J. CAMPBELL) volunteered to swim across and tow her. Several lariats were knotted together, and the brave fellow made the attempt successfully, the boat being loaded with a cargo of saddles. A similar line attached to the stern enabled us to pull her back, when it was found that she had taken in a great deal of water through the pores of the canvas. The bow was unlashd and the boat lifted up and allowed to drain out.

After that trip the canvas was so swollen that it admitted no more water, and the boat carried an average load of three troopers with their arms and accouterments, saddles, bridles, etc., included. The horses and mules swam the river under the guidance of a few men, but the material, equipage, and the bulk of the men were all carried across in about three hours from the time we made the trial trip.

What made this an especially hard test was the swiftness of the current, which rendered paddling impracticable, and obliged me to resort to the rope-ferry plan.

One year later I crossed the Cœur d'Alène river in northern Idaho, near its mouth in Cœur d'Alène lake. There the water was of great depth and the distance to be traversed much greater, but as there was scarcely any current, the difficulties to be encountered were much less. We made, as well as I recollect, several boats, and crossed the command, consisting of General JEFF. C. DAVIS, commanding the Department of Columbia, his staff and escort, and "E" Troop, First Cavalry, in about two hours.

The principle adopted seems to have been the same as that mentioned by Mr. KOVRIGIN, except that the Russian boat, was a boat proper, while the American one was a raft. The latter probably had the advantage of rapidity and ease of construction and answered the purpose for a small command. With the means at hand it would have been impossible for my command to construct such a boat as is described in the interesting paper we have heard read.

LETTER FROM GENERAL LONG.

EDITOR JOURNAL:—I ask that you publish in the next issue of the JOURNAL the following comments on the article "KILPATRICK's Raid Around Atlanta, August 18 to 22, 1864," in the JOURNAL for September, 1890, just received by me:

Unavoidably, perhaps, the writer's sources of information were few, apparently judging from the text, confined in the main to two, which he alludes to in the article.

Having no official data at hand to consult I rely on my memory in my comments. I have had called to my attention a newspaper article in which the same objectionable statements referred to herein were embraced, which I did not deem it necessary to answer; but the publication of the same thing in the JOURNAL and the position of the author, seem to make these comments necessary, not only in justice to myself, but to the officers and men of the brigade which I had the honor to command on this occasion.

The expression, Second Division, is used more than once in the article. Properly speaking, there was no such thing in the command. There were two brigades of that, the Second Division, with the expedition, and the circumstances would have had to be peculiar, while General KILPATRICK was present, to have authorized or warranted the commander of one of those brigades to give an order to the other; it was not done. I have no recollection of the attack on the rear of the column, mentioned near the bottom of page 266, and may say of the whole expedition that my command did not receive the fire of, or see more than two or at most three hundred of the enemy at any one time, although we were in the advance most of the way going, and in the rear returning.

Near the middle of page 268 the following language is used: "Orders were given Colonel LONG to form his brigade in close column of regiments in rear of the leading one. There seems to have been either considerable confusion or disobedience at this point, for LONG, in the charge, followed the leading brigade in column of fours, etc."

I have no recollection of said orders being received by me, and, of course, of any disobedience on my part or that of my command, and therefore deny the statement "in toto." It would take most indubitable testimony to convince me of its truth. To disobey an order is something I am not conscious of having done during the war.

As to confusion, in the sense or idea of a stampede, apparently intended to be conveyed by the text, there was none in my command or any part of it at this time or place, or during the whole expedition. The only time there was confusion in my command was hours afterwards and some distance from the place referred to; when in command of the rear I had a line of men dismounted behind a fence and rise of ground, awaiting the arrival of the pursuing force, sufficiently near to give them an effective reception; but a few moments before the opportunity would have occurred, the senior officer of the regiment of which the line was composed, seeing a few men on our flanks in the woods, most unaccountably, in view of his long and creditable services hitherto, and his good qualities as a soldier, exclaimed, "We are surrounded," or something like that, and by words and motions gave his men the command to retreat, which was done in a disorderly manner, and which I was powerless to prevent. Here several men, including myself, were wounded; myself *not* seriously; in the dangerous sense of the word, the wounds, though temporarily incapacitating, being flesh wounds.

The statement at bottom of page 269, "It (Second Brigade) was finally withdrawn with a loss of ten per cent. of the men *killed*," is manifestly erroneous, ten per cent. of the two brigades' *casualties* (killed, wounded and missing) would be only about 239 men, (referring to total at bottom of first page of article) while ten per cent. of Second Brigade, 1,383 men, would be about 138, leaving only sixty-eight *casualties* to have occurred in the First Brigade and battery together. See statement of *casualties* on last page of article; total 206, in the battery and two brigades. The fact probably is that the *casualties* of the First Brigade, occurring in its brilliant charge, largely outnumbered those of the Second. While I am not positive, I don't think the *casualties* of the Second Brigade amounted to ten per cent. thereof in the whole expedition.

If there was any confusion or disobedience on the part of the Second Brigade or its commander, it is somewhat singular that something should not have been done or said about it, at or about the time it occurred, and that it should be discovered and commented upon only some twenty-six years afterward.

As to confusion, considering the time, circumstances and oppor-

tunities, I had a good, well drilled brigade, and during this retreat, fought it when the nature of the ground would permit, as I have never seen done before or since, by bugle commands or signals, retiring alternately one and then another portion of the line, and to me, and probably to most of the men of the brigade, who have seen or heard of it, it is humiliating to have a charge or accusation of this character brought against it at this late day.

In a military point of view the expedition was not a success, and almost necessarily so from not having any proper objective point on the railroad, such as a bridge or tunnel where it would be practicable in a *short* time to so damage it that it would take a comparatively long time to repair it. Had two or three miles of the road been absolutely obliterated so far as rails and ties are concerned, it would, under the circumstances, have been but a comparatively short time before it would have been rebuilt.

ELI LONG.

BLUFF POINT, YATES CO., N. Y.

Brigadier General, U. S. A. (Retired).

PROFESSIONAL NOTES.

SHOD AND UNSHOD HORSES.

A perusal of the article entitled "An Unexampled Ride," in the September number of the JOURNAL, in which the feat of riding a "shod" horse 5,478 miles in 193 days is recorded, caused me to again read Lieutenant PARKHURST's article in favor of *unshod* horses. My experience is radically different from that of Lieutenant PARKHURST and Captain FORSE, and accords well with that of the Cossack officer PESCHKOFF, the "unexampled rider," and of Major BERNARD and Captain BOURKE in favor of the well shod horse for all campaign purposes.

In June, 1882, while stationed at Grierson Spring, Texas, Dr. ROSE, a son of Colonel ROSE, Sixteenth Infantry, stopped at my camp, while making a circuit from Fort Concho via TARDY's ranch, Fort Clark and San Antonio. He was riding a five-year-old pony which had never worn a shoe. I proposed that the mare be shod, but the Doctor declined, saying with great pride, that he could ride her a thousand miles without shoes. If any horse could go that distance without shoes, it seemed that his mare might do it, as her hoofs were flinty and very hard. The next day during a rain, Doctor ROSE left for TARDY's. The rain continued all that day and night. On the fourth day the Doctor returned to my camp, leading a very foot-sore pony. The trip to TARDY's, with a long ride over the mountains, had made the pony's feet too sore to bear her rider's weight.

I had some very light, steel shoes made. The blacksmith, in putting them on, found the hoof walls exceedingly hard. The Doctor soon left for Concho, going via San Antonio, and rode his pony "SHOD," more than six hundred miles, in the next thirty days, without any injury to her hoofs or shoes.

In May, 1885, together with Captain KELLY and Lieutenant (now Captain) HUNT, Tenth Cavalry, I joined Colonel BIDDLE, who was in command of the troops of Captains RAFFERTY and KENDAL of the Sixth Cavalry, at Fort Cummings, N. M. Colonel BIDDLE's command had, for two days, pursued GERONIMO's party, from above Hillsboro down the Black Range and Cook's Peak Range, over a very rough and mountainous country. Near Hillsboro, the Indians had captured a fine sorrel horse, which had never worn a shoe, though it

had been long used for hauling ore over a rocky road. The two cavalry commands followed GERONIMO's party into Old Mexico, whence, several days after, they returned to the Florida Mountains, at which latter point the sorrel horse was seen by us limping about, grazing, having been turned loose by the Indians, on the third day after his capture.

All the horses in Colonel BIDDLE's command were shod. He did not lose a horse or have a man dismounted, on account of sore footed horses, yet we were in the saddle over twelve hours each day. We found several horses that had never been shod, which had been abandoned or killed by the Indians because of sore feet. Several days later, the owner of the sorrel horse led him into our camp with his feet tied up in gunny sacks and limping badly. I inspected the horse's feet and found them literally worn out, the sole being no thicker than blotting paper, and the frog almost worn out and torn away. There were several holes varying from a quarter to a half inch in diameter broken through the soles; through these holes the red flesh or pulp protruded, which I pushed back, and had a shield of bacon rind or skin fitted to each hoof and a set of Burden shoes nailed on over the bacon skin. An expert blacksmith bent a number of nails in trying to drive them into the walls of the hoofs, in nailing on the shoes, which showed the great hardness of the hoof walls. As soon as shod, the horse walked off with only a slight limp, and soon recovered from the effects of his owner's great faith in letting horses go barefoot. The above instances show that the bare hoof against gritty earth, in rough riding will soon be worn away, and that nature, unaided, will not renew it rapidly enough to prevent lameness from sore feet.

While serving at San Carlos, A. T., I was for the greater part of eighteen months riding over mountains and "mal pais," and found that short-heeled shoes made sore-heeled animals, caused by the cutting of the sharp and rough stones against the unprotected heel. As the weather became rainy, and the "mal pais" softer, this injury to the heel became more apparent.

Packers advocate these seven-eighths shoes, because they remain on longer on account of not twisting off in the crevices of the rocks. I could never see any virtue in this claim, that was not more than offset by the tendency to cause "contracted hoof," from use of short-heeled shoes, and from keeping shoes on too long. The cost or labor of shoeing was, in my opinion, the real basis of the packers' argument. When horses were to remain long in camp, I had the shoes pulled off, and replaced only when rough work was required of them.

At Fort Grant, A. T., "toe clips" were given a fair test on my buggy horses, which were almost daily driven from ten to twenty miles over smooth roads, and stony ones also. The "clips" were neatly nailed on, and partly counter-sunk, but they did not remain on as long as two weeks, and nearly every one spread out before being pulled off. A number of the clips cut the legs of the horses quite badly before discovery.

Lieutenant PARKHURST makes a strong plea for "no shoes," and

believes that the "hardening process" of the hoof is the true method. To prepare a hoof for a shoe, when the shoe may become necessary, his method is excellent; but, to my mind it will prove a failure, if it is expected that the horse, with merely the hardened hoof will perform the work, which our horses, (shod by our late method of shoeing) did with shoes on.

Lieutenant PARKHURST's theory is, that good and sufficient food for the horse is as necessary in replacing the worn-out tissue of the hoof, as the "stone bed" is in hardening the tissue so formed. On arduous campaigns neither of these requirements is easily had. A scant supply of short grass, every day or two, is all the horse gets. The "stone bed" is often replaced by soft or wet earth, and the heat and moisture developed by travel are retained in the hoof long after the horse is picketed, and thus the softening process rapidly puts the unshod hoof of a campaign horse on a par with that of an Indian pony. So in all arduous campaigns there is the greatest amount of waste of hoof and the least amount of tissue producing food.

The comparison of the foot of a female porter to that of the service horse, which Lieutenant PARKHURST makes, lacks about every element necessary to a fair comparison—the main one being that the portersess controls her own movements, while those of the horse are controlled by his rider. If the portersess bruises her foot, she stops and applies remedies at once—uses a stick to relieve the weight on the injured foot. The horse is often urged by his rider until, as in the case of the sorrel horse, a hole is worn in the sole of a bare foot, which would not have been the case with a shod hoof. The remedy then is the "shoe," which should have been the preventive and not the cure.

Because the hoofs grow and harden faster than is necessary while the horse is merely standing on a stone bed, does not go to prove that such will be the case when the horse is in constant use on rough roads. There is little or no friction between the hoof and the "stone bed," merely pressure of the horse's weight; and movement is entirely at the horse's volition. It is like an axe on a stationary grindstone; but turn the stone and friction begins. Move the horse and the wearing process begins, increasing in proportion to the weight and velocity. Even an ordinary amount of riding over a gritty road will soon prove that in almost every instance the loss of hoof is greater than the amount replaced by nature.

Lieutenant ASSÉEFF, the Russian, rode 1,700 miles in thirty days, and had his horses shod twice. He did not risk an unshod animal.

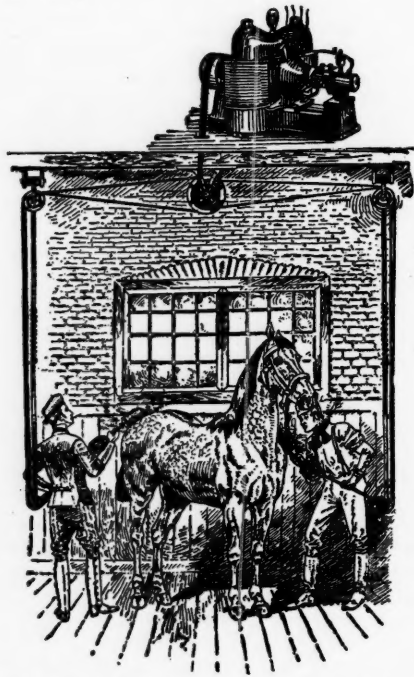
Sotnik (Lieutenant) PESCHKOFF, in making his "unexampled ride," in the dead of a Siberian winter, rode his grey horse (Seri) an animal only twelve hands and three inches in height, with one hundred and eighty pounds up, 5,478 miles in one hundred and ninety-three days. This horse was shod, and his rider carried his shoeing kit and extra shoes, although he took no food along. Such powers of endurance as were shown by a well shod horse, in this "unexampled ride," would, it strikes me, satisfy all demands that man could make on the horse, and, until equaled by an unshod horse, settle all questions as to the superiority of the shod over the unshod horse.

My experience with horses, as a lad, on a sandy and gritty farm, as a cadet, and since in actual service, has taught me that for steady, all-round work in any service, a horse should be kept well shod on all four feet; and I doubt that any advocate of non-shoeing will back his judgment so far, as to agree to ride back, *on an UNSHOD horse*, with PESCHKOFF through that Siberian waste; even though his reward, if successful, be a general's star or stars; provided that the penalty, in case of his failure, be that the non-shoeing advocate must perform the remainder of the journey on foot, from the point at which his unshod horse became a "tenderfoot."

J. B. McDONALD,
First Lieutenant, Tenth Cavalry.

GROOMING MACHINE.

A very ingenious grooming machine, invented about two years ago by Mr. JESSE WELLS, of Des Moines, Iowa, is now in successful operation in that city.



A cylindrical brush about five inches long and seven inches in diameter, is attached to a shaft running through a hand piece at the rear end of which a mitre-gear is placed within a pair of wyes in such a manner as to form a universal joint. This joint is carried by rods

about six feet to the rear to another universal joint and thence to the ceiling to a third joint. Within the joints are pulleys which carry a belt from the motive power to the mitre-gear at the brush. Springs and set-screws make the whole machine adjustable, and "tension the drive" of the brush. In the words of the inventor, the whole may be likened to a monster arm, with a cylindrical brush for a hand, driven by a belt running around the elbow to the shoulder. When connection is made with the motive power, the brush revolves very rapidly, while the system of rods and joints permits it to be applied to any part of the horse without moving him at all after he is placed in position.

To facilitate the operation of grooming, two arms like the one described are used, one on each side of the horse. Three men, one at each arm and one to lead out, are required, and it takes just a minute and-a-half to groom a horse thoroughly, the finishing touches being given with a soft cloth.

The machine is cheap, simple in construction, very durable, does not easily get out of order, and requires no special training, beyond a little practice, for its operation. Any motive power can be used. The inventor uses electricity, not only for grooming but also to pump water, handle hay, and operate a large elevator.

At posts provided with an electrical plant, it would be a very simple and inexpensive matter to place two of these machines in each troop stable or corral. Five men could groom two horses in a minute and a half or sixty horses in three-quarters of an hour. In other words, five men could do the work at present performed by all the available men of the troop in the same time, and much more thoroughly, and the time now spent in morning and evening grooming could be utilized for other purposes.

The horses very soon get used to the machine and seem to like it. In winter the hair grows longer, since none is pulled out by a scratching comb. Not one of the horses groomed by the machine showed signs of a cold last winter.

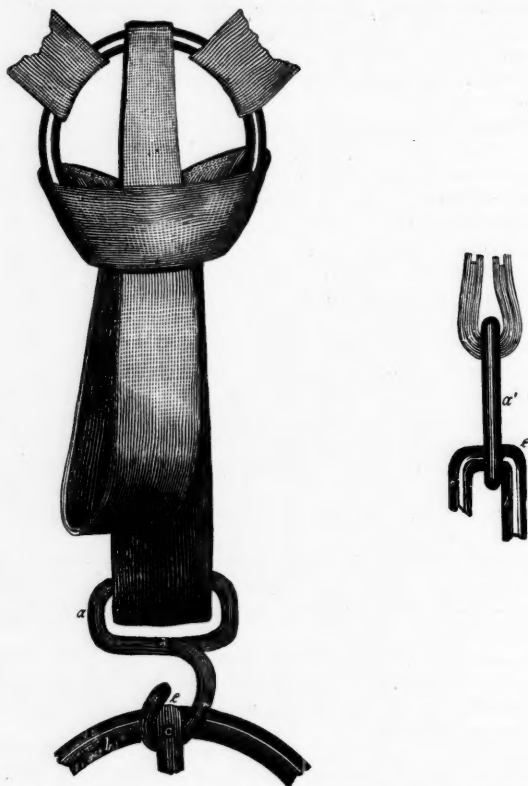
As it is only a question of time when all troops will be stationed at regimental or battalion posts, each having an electrical plant, it is not improbable that the grooming machine may find a place among the other improvements.

G. W. READ,
Lieutenant, Fifth Cavalry.

LIEUTENANT COLE'S GIRTH ATTACHMENT.

The attention of the Association is invited to the following described cinching attachment which, it is believed, can be made useful in the cavalry service. The attachment, shown half size in the sketch, is of three-sixteenths inch steel wire. The cinch strap is passed through the attachment three times, the cinch knot made, and the end of the strap made fast to the saddle ring, (sketch) the slack being let out full length. To couple with the "D" ring, the following is proposed. The "D" ring, made of steel wire of the usual size, is welded at "EE," a free end an inch or so long is left, which is bent

first perpendicularly to the plane of the ring, then parallel to it, in direction of the diameter. Cinching consists in making the coupling and tightening up. To adjust saddles the strap is loosened and the cinch swung free of the horse's body. As perfect adjustment can now be made as when first saddling. This fact ought to go some distance toward keeping horses' backs in good condition. Much time is saved



in the first operation of saddling. This might be very valuable in an emergency—especially in saddling in the dark. With this attachment it is perfectly possible to dismount, thoroughly adjust a saddle and blanket, reinch and mount, in one minute. The undersigned has used a similar attachment with great satisfaction. The attachment does not touch the horse.

JAMES A. COLE,
Second Lieutenant, Sixth Cavalry.

NOTE:—Cincha is the Spanish word for girth and, like many other words relating to horses and their equipments, has been received from the Mexicans on our southern borders. This explanation is offered on account of the various and puzzling ways in which this and other words similarly derived are frequently spelled.—EDITOR.

In a pamphlet extract from the *Royal United Service Institution Journal*, for May, 1890, we have received with the "author's compliments," an exceedingly timely and interesting article on cavalry equipment, organization and distribution, by Colonel F. G. GRAVES, Twentieth Hussars. The writer is evidently an officer who has learned from actual experience in the field the many disadvantages and discomforts attending the use of the uniform prescribed by the regulations; and has, at last, determined to bring the subject of reform in such matters to the notice of those who may be expected to heed the warnings given, and expostulations made, against the further handicapping of the cavalry soldier, by the use of articles of equipment which have no other *raison d'être*, than the fact that they have been consecrated by the traditions to which they owe their origin.

The following extracts will give a general idea of the drift of the writer's suggestions, and we have no doubt, that most of our readers will at once recognize the applicability of the remarks to needed changes in our own cavalry uniform and equipment:

"There is nothing better for service wear than a good stout cord for pantaloons. We wore it for three years in Egypt, and it gave complete satisfaction, except that it was rather too light in color, and washed still lighter. We could have a dark blue cord that would wash, and I believe the issue of cord pantaloons alternately with shoddy ones would be a boon. I suggest this, so as to have the jackets and pantaloons the same color. I confess, that for field service work, I personally prefer a good brown as the best color. * * * The knee boot, when it fits properly, is comfortable and wears well, but it is cumbersome and unyielding to do dismounted work in and, if wet through, is difficult to take off or put on. It was the consideration of these difficulties that led me to invent this gaiter boot in 1878. With it you have the freedom of an ordinary gaiter; when dismounted, you have coolness; no matter how wet, it can always be taken off and put on with ease, and it is cheap. When you fit it with a jack spur and strap, it cannot be distinguished from an ordinary jack boot at ten yards' distance, and it cannot shift around. * * * Good large pockets outside this jacket are a great comfort to the man; cross, not side pockets, in his pantaloons, should also be allowed. * * All buttons should have the stem pushed through a top-sewn hole and fastened into a split ring, not sewn on. * * What we want is some one strong enough and in a sufficiently authoritative position to say boldly that we must have two kits laid down, one for show and the other for work in the field. We don't want pipe clay and chrome yellow in the field. Brown belts for that, the other for attracting recruits, etc., if you like.

"Forage: * * I therefore content myself in drawing attention to the "corn cake," I was fortunate enough to invent in 1878. I refer to it merely as an article of "equipment;" it occupies about one-third the space that oats do; and, every grain being crushed, it goes farther than oats as used ordinarily. That cake has been used with good effect in Afghanistan, South Africa, and Egypt, it has been recommended for adoption by the W. O. Forage Committee, and received

the strong advocacy of Dr. FLEMING, in his lecture on forage for military purposes. Three days' rations of this corn cake occupy about the same cubic content that one day's ration of oats does, so that with it you can send a body of cavalry away from their base of food supply for a week or so with ease and comfort, so far as the horses are concerned. It can be carried easily and without waste."

It is hoped that the writer's efforts to bring about reforms so urgently needed in the British army will meet with the success they deserve, and that he will find among his brother officers of all grades, many who will join him in his warfare against acknowledged evils. Although the United States army has a uniform and equipment intended solely for field service, the dress uniform being used only in the performance of garrison duties, yet, we have many changes to make in it before it shall approach, much less reach, the plane of perfection. As a case in point, it is only necessary to call attention to the fact, that the blouses which officers are required to wear do not contain a single pocket in which a lead pencil, memorandum book or pocket compass can be carried with comfort, if at all, although no one is supposed to be without them; nor is anything like a sabretache authorized, or desired, for the purpose. The forage—"corn cake"—of which Colonel GRAVES writes is certainly something which should be investigated, with reference to its introduction into our service. With our system of transportation by means of pack trains, it would seem that such an article would enable us to overcome the greatest difficulty our cavalry has to contend with—especially in Indian warfare that of keeping our horses in serviceable condition.

BOOK NOTICES AND EXCHANGES.

EDITOR JOURNAL:—In a very fair review of my "Practical Information for Non-Commissioned Officers on Field Duty," in your issue of September, the following appears: "To one remark of the author we wish to take decided exception, and that is, that 'rifle practice is now admitted to be the most important part of a soldier's instruction,' if by the word soldier, is meant the trooper, for it requires no argument to show that, admitting the advantage possessed by the trooper who can handle his carbine effectively over one who cannot, yet there are many other duties equally important which have been to a certain extent lost sight of in the craze for making marksmen and sharpshooters out of cavalrymen."

In reply: By soldier, I did include trooper, and I believe the craze in rifle practice has greatly increased the efficiency of our cavalry in *all* their duties. Before the rifle practice craze started, was the cavalry in as efficient condition as now? and yet they had plenty of time, and what was done with it? I do not refer to those who were in the field scouting—but even this duty a number of years before the craze started, was limited. Two months' target practice should not interfere with cavalry efficiency, nor do the reports of inspectors show that it has. When this craze, or more properly duty, is carried so far as to make our troopers anything beyond marksmen or good skirmishers and revolver shots, then I will draw the line and leave sharpshooting to the infantry. No, the trouble is not in paying too great attention to rifle practice—which has come about by work and rivalry—but in not paying an equal amount of attention to our other duties. Till emulation is evoked by competitive mounted drills and publication in orders, and the cavalryman required to do all his duties mounted and not assimilated as now with foot troops, for drills, reviews, inspections and parades, the much desired end, a cavalryman in name and fact, will never be accomplished. This is what the authorities should require to increase and maintain the efficiency of our cavalry.

GUY V. HENRY,
Major, Ninth Cavalry.
Brevet Colonel, U. S. Army.

TASCHENBUCH DES KAVALLERISTEN VON GRAF WRANGEL. Stuttgart. Schickhardt & Ebner. 1890.

This little book of three hundred and sixteen pages contains, in a compact form, the knowledge regarding the horse most essential to the cavalryman. It is a valuable contribution to the literature of military hippology.

The book is divided into nine chapters. The first chapter contains a short account of the horse, its supposed origin, and the historical records of its use as a domestic animal.

The second chapter is worthy of especial study. It treats of the anatomy and physiology of the horse, points out the good and the bad features of the bony structure, and describes briefly, but clearly, the functions of the different organs of the body.

The third chapter is a most satisfactory disquisition on the teeth as an indication of age. The author truly says that, after all, "the mouth of the horse is the best teacher;" and the chapter closes with the dictum: "Whoever would rightly estimate the influence of age upon the usefulness of the horse, should lay to heart the following approved proverb: 'The age of the horse is nothing so long as his feet and legs are sound.'"

The fourth chapter relates to the exterior of the horse; telling how to select a horse by means of shape, etc., and giving the terms used in describing the different colors of horses' coats.

The fifth chapter contains interesting information concerning the different breeds of horses, and the characteristics and relative worth of the horses produced in different countries. The author does not admire the conformation of the American trotter, and discourages its importation into Germany.

The remaining chapters relate to "stalls and stall-service," food, feeding and watering, horse-shoeing, and the diagnosis and treatment of the most common equine diseases.

In the introduction, Count Wrangel tells us that he desires to remove a stumbling-block from the path of the student of hippology; and if by this he means to avoid the common fault of military textbooks, diffuseness of style and unlimited verbosity, he has certainly achieved success.

On the whole, the book is worthy of the highest commendation, and it is to be hoped that it may be translated into English, and thus find its way into the hands of all our military students.

A. S. FROST,
Second Lieutenant, Twenty-Fifth Infantry.

DRESSAGE MÉTHODIQUE DU CHEVAL DE SELLE. D'Après les derniers enseignements de F. Baucher, Recueilles par un de ses élèves, avec portrait et vignette. Paris. J. Rothschild, Editeur, 13 Rue des Saints Pères. 1891.

A veritable *édition de luxe* of a work which has always been held in high esteem by those who, having the means and time at their disposal, have found their highest enjoyment in training the saddle

horse to a point of perfection, which left nothing to be desired, so far as the rider's comfort and pleasure, to say nothing of his safety, were concerned. Many years ago some of our older cavalry officers while employed as instructors at the Military Academy, practiced the system of Baucher, with the most astonishing and gratifying success; by means of it controlling and training the underbred, obstinate brutes of that day, so as to obtain really satisfactory results, when all other means had been tried and abandoned as useless.

Major Dwyer, in his book, "Bits and Biting, Seats and Saddles," has incontinently condemned the Baucher system of horse training, as founded on false principles and a misconception of the nature of the intelligence of the horse. Asserting that "Baucher's 'handling' was almost all done when the horse was standing still, and its effect either became null when the animal was put in motion, or, if preserved, the power of locomotion was seriously impaired. No horse ever voluntarily assumed such a position of his head and neck as prescribed by M. Baucher—in fact, it was wholly unsuited to any form of movement; it was like attempting to steer a ship that had no way on her. He overlooked altogether the problem of equilibrium in motion, and mistook diminution or restriction of motive power for a perfect command over it, under all circumstances and at any degree of speed. It is unnecessary to add that the demon of restiveness, whose habitation he fancied he had discovered in the neck-joint, and whom he constantly attempted to exorcise, was simply the creature of his own phantasy." It is possible that Dwyer and Baucher had different ideas as to the training conducive to the greatest usefulness of the horse; the former, in his ideas of what the horse should be, looking to the best effects to be produced in the cavalry and the hunting field, while the latter was more enamored of the graceful motion of his favorite pupil in the park and riding school.

The book under consideration is a marvel of beauty, with its fine paper, clear type, wide margins and exquisite covers of ornamental paper, and so, in its general appearance, is attractive enough to induce people to read it who would ordinarily be indifferent to its subject.

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DIE ITALIENISCHE ARMEE, IN IHRER GEGENWÄRTIGEN UNIFORMIRUNG.

In this publication, for a copy of which we are indebted to Colonel A. L. Bresler, Superintendent of the Ohio Military Academy, Portsmouth, Ohio, will be found beautifully executed colored lithographic plates of the different uniforms at present in use in the Italian army. Apparently the costumes of all ages have been studied with a view of selecting the various patterns of uniforms, and the primary colors of the rainbow, their complements, and all the combinations of which they are capable, have been utilized to give variety and gorgeousness to the military uniforms of the present day. To the average American most of this seems like a needless waste of public money by a government which certainly has not much to spare, and in addition, the effectiveness of an army must, in this day of long range fire-arms, be injured by the use, in the field, of uniforms

which are calculated to attract attention as surely and at almost as long range as the flashing of a heliographic mirror. If called upon to do so we would suggest that, for garrison use, each arm be allowed to have its own peculiar dress, as handsome as art could devise; and for field service, the plainest that would ensure the greatest healthfulness, effectiveness and comfort of the officers, soldiers and horses.

REVUE DU CERCLE MILITAIRE. Series of 1890.

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No. 47, 1890: Our Northern Frontier. Development of Naval Armor. The Light Battery in Peace. Practical Education of the Soldier. No. 48, 1891: A Practical Scheme for Training the Regular Army in Field Duties for War. A Proposed Change in Artillery School Methods. Modern Bobadilism, or the Marksman's Method of Defeating an Army. Strategy, Tactics and Policy. The Gyroscope and "Drift." Practical Education of the Soldier. The Battle of Plattsburg.

THE UNITED SERVICE. November and December, 1890.

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